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## Mexico's Agricultural Development

THE fertile lands of Mexico have always produced the most bounteous and varied crops, in spite of the constant efforts of the native farmer to kill them by the worst methods of farming known to mankind.

With a single-handled, wooden-bladed plow, armed with a long goad, he prods his slow-footed, cloven-hoofed oxen over the fields and scratches the surface to form a bed for the grain that he scatters. This, however, is only when he waxes energetic; usually he regards the preparation of the soil a useless formality, and his "farming" consists of the throwing of seeds upon the ground. His seed is never good. He knows nothing of the science of horticulture, and plants the same seed on the same land in endless succession.

In a thousand ways he offends the ideas and the practises of the American farmer, yet his yields are always comparatively large, so we can estimate how they would be multiplied by the applica-

No country, save Japan, has made the great advancement during the last generation that our sister republic has made, and the general improvement is noticeable in agricultural lines, although this branch has lagged—doubtless because the Mexican is not naturally bucolic in his predilections.

Another cause which has entered into this is the fact that the larger portion of Mexico, like California, is semi-arid and the certainty of crops is only arranged by irrigation. This has long been recognized—so long, in fact, that Cortez, early in the fifteenth century found great fields under irrigation, and likewise found evidence that this scientific practise had been in use for centuries.

Cortez was familiar with only the section of central Mexico as marked by the plains about Cholula, but the scope of ancient irrigation is evidenced by the fact that Coronado found the lands in what we now know as the Rio Grande Valley, extending through portions of

rare. The land is semi-arid, and rare as is the fertile land, much more rare is water that is needed to bring fecundity to that land.

These cultivatable tracts lie in valleys hemmed about by mountains and wide stretches of desert lands, just as they do in our own Pacific Coast sections. California furnishes a good example of conditions in Mexico—as, save for the great Sacramento and San Joaquin basin, the fertile lands about Los Angeles and the Imperial Valley sections, the great state of California is a barren waste of desert crossed by great mountain ranges.

California has become prominent through the practise of irrigation, and the greatness of Mexico will come from similar development. There is scarcely a state in Mexico where an important irrigation work is not under way. In the northern portions the work is most advanced, for there the border land marks the scenes of the united work of Americans and Mexicans.

half of which are in Mexico. This Imperial Valley is so well known that only passing mention need be made of it. The lands produce most of the crops grown in temperate and semitropical climates.

A hundred miles or more away, nearly due south from Imperial, is a great delta at the mouth of the Yaqui River. It contains a million acres of land that rivals the soil of the Nile Delta in fertility, and produces a wide range of vegetable food and fruit. It is being placed under irrigation by a group of American capitalists by means of a vast canal system, through which the waters of the Yaqui are diverted, and by means of tunnels and ditches conveyed to the level, fertile, sea-coast valley. Many thousands of acres are now under water service, and the extension of the canals and laterals will place a new section, containing over two hundred thousand acres, under irrigation by the spring of 1909. This work has been under way since 1884 and is now nearing completion.



The Yaqui Valley, a Recent Delta in Sonora, Mexico, Being Placed Under Irrigation by a Group of Americans

tion of the simple rules of the modern planter.

The crops from his lands are most varied—the products which we know, so mingled with the strange-named ones, as to make us skeptical that one soil could produce them all. Vanilla, wheat, coffee, tobacco, oranges, corn, beans, manioc, sugar, lemons, aguacates, plums, chirimoyas, citrons, pineapples, hay, melons and all kinds of garden vegetables and fruits, together with many other products peculiar to localities, grow and fructify in spite of the native's efforts to kill them by his spasmodic, misguided cultivation.

The climate is superb. In the northern portions it is even superior to the best in California, and in the south more tropical conditions rule as one approaches the equator. Lofty snow-capped peaks and ranges of mountains with their tablelands and elevated mesas furnish all shades of climatic conditions, so that Mexico's products range through the gamut of all the crops of all the zones.

New Mexico, Texas and Old Mexico, in the highest state of cultivation and thickly populated. Our federal ethnologists report that in the eighth century the Salt River Valley, now a part of Arizona, then a part of ancient Mexico, was likewise irrigated and densely settled. The long series of wars of Spanish conquest and of French occupation, followed by years of internal strife, stopped all agricultural development, and old canals became ruins and silt and dust have filled them.

Under the wise policies of Diaz the country has forged ahead and peace prevails. The cities and towns hum with commercial activity. They are lighted by electricity and trolley cars dash through the streets. Telephone and telegraph wires stretch throughout the land and the Realm of To-morrow is become the Dominion of To-day.

In Mexico there are approximately thirty million acres of arable land, and as the total area of the country is nearly half a billion acres, the farm lands are

The great Rio Grande project, which has been developed by the Reclamation Service of the United States, has within its boundaries lands on both sides of the border; and the flood waters of that river serve an area which has as its zone hundreds of thousands of fertile acres extending from Elephant Butte in New Mexico through Texas to Fort Quitman, and irrigate a strip of Mexican territory over fifty miles in length. The work is international in its scope, as much of the water rights were in the ownership of Mexicans; and as the diversion was accomplished over one hundred miles north of the United States-Mexican border, the two republics are bound together in an alliance for the mutual good of their several peoples.

A second project comprising both Mexican and United States lands within its area is located in the basin of the Colorado Desert, known generally as the Salton Sink, and developed under the name of the Imperial Valley project. It covers about six hundred thousand acres, nearly

In the Nazas Valley, a great plain, extending through the greater part of Chihuahua and Coahuila and bounded east and west by the Sierras of the Pacific and Gulf coasts respectively, is being irrigated. It consists of the watersheds of the Rio Grande and the Bolson of Mapimi, and covers a tract measuring six hundred by four hundred miles, and has an average altitude of four thousand feet above sea level.

The work in connection with this reclamation was undertaken in 1892, at which time fully two hundred and fifty thousand acres were under irrigation, having been served for some years by rough ditches which conveyed the water to the land. The region was then producing the bulk of the cotton crop of Mexico as well as a great production of corn and wheat. Several million dollars are being expended in its irrigation, but its wisdom is evidenced by the fact that the value of the cotton crop (of 1907) produced there exceeded ten million dollars, and marked an increase of eight hundred per cent

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above that produced before the lands were irrigated.

In 1900, when the drainage of the Valley of Mexico was completed, a company was formed to use the waters discharged from the cut of Tequisquiac by turning them into the Rio Salado and conducting them to a reservoir formed by the Tlamaco Dam, where they are impounded. This is in the State of Hidalgo near the City of Mexico. From the Tlamaco Reservoir a canal sixteen miles long conveys the waters to the forty-five thousand acres which are being irrigated. The water has sufficient fall to admit of the development of two thousand horse power, which is used in generating electricity.

#### The Government Takes Part in the Work

The Mexican government has under consideration a plan contemplating the impounding of flood waters of the Nazas River by means of a dam to be built in the Fernandez Cañon.

The government does not make a practice of undertaking irrigation projects. It is its usual custom to grant permits to private associations or to individuals, but at all times it retains control, under wise, just laws, of the waters, and it fixes the prices charged as rental for water service and for the service of other quasi-public utility corporations. This practice effectually solves the trust question.

The Mexican laws provide generally that the riparian or water right belongs to the land and cannot be separated or segregated therefrom. The justice and the Mexican application of this law has proved most wise—and would seem to be much better than our own. Among other things it prevents the impositions sometimes practised in the United States by water companies, who compel the water users to pay large sums for that which is called "water stock" and represents the farmer's right to pay to the water company a rental—sometimes most exorbitant—for the water which his lands must have.

In Sinaloa, on the west coast, a large irrigation plant is being installed. It will furnish water to a large area, eighty-eight thousand acres of which are now under water service.

#### The Cost of Irrigation in Mexico

In the State of Puebla a tract containing fifteen square miles, or nearly ten thousand acres, has been served with water at a cost of about one hundred thousand dollars. This illustrates generally the low cost of irrigating the Mexican areas as compared with the serving of the United States sections under present-day conditions. Statistical information makes clear that in the United States governmental reclamation cost is averaging nearly forty dollars an acre, and the

water user must absorb this cost—a thing that is not required in Mexico.

In Guerrero one hundred and fifty thousand dollars has been expended in the completion of a large project.

Señor Creel, the recent Mexican ambassador to the United States, and the governor of the State of Chihuahua, is placing one farm containing six thousand acres under irrigation in that state. In Chihuahua another enterprise having in view the irrigation of half a million acres is under consideration.

In Durango a concession has been granted by which the waters of the Palmillas River will be diverted and used for irrigating purposes; and in Chipas the waters of the Rio Canalejo will be used for the same purpose.

#### Some Systems Have Large Capacity

Just east of Monterey a vast reservoir with a capacity of two hundred and fifty million gallons is installed. A great pipe line, measuring six miles in length, conveys the water to the Nuevo Leon lands, which are thus irrigated.

In Jalisco the state board of agriculture offers prizes for wells and plans contemplating the increased use of water, and releases from taxation irrigating plants and machinery used in their development.

In fact, it is the general rule throughout Mexico for all of the states to offer

such encouragement in emulation of this general governmental policy.

In considering the question of removing to Mexico, the American investigator desires information as to his civil status. Foreigners residing there have exactly the same general rights, privileges and obligations as citizens of the republic. They cannot, however, vote or hold office, nor can they acquire real estate within twenty leagues of the frontier, and they are exempt from military service.

Foreigners acquiring real estate or having children born to them while in the republic will be considered as citizens, unless at the time of registering the title to the lands or the birth of the child they declare their intention of not changing their allegiance.

The perfect growing conditions, salubrious climate, adequate water serving, unrivaled fertility of lands, are all uniting to impel Mexico forward and upward to that exalted station in the scale of agricultural preeminence to which she is entitled.

The American agrarian, fitted by his constant contest with less-favored conditions, is doing much to gain for Mexico this destiny of hers, and for himself is gaining that towering pile of yellow coin which is our workaday world's best evidence of good work well done.

CHARLES R. PRICE.

## What Shall They Do?

Some Good Advice on Farm Problems

AN INDIANA man writes that he has purchased a ninety-two-acre farm, going in debt for it thirty-five hundred dollars, and he expects to pay off five hundred dollars a year until the debt is cleared up. He is obliged to rent it for a time, as he is not able to go on it himself, and he would like to know how to crop it so as to make it pay for itself. To make his first payment, with interest, he will have to raise seven hundred and ten dollars. That is over seven dollars an acre. I should call that pretty good rent for a farm that is somewhat run down. To get that amount of cash and a living off ninety-two acres will take some mighty good farming and financiering. A thorough farmer—one who understands the business thoroughly—could do it, but tenants who can do it are as scarce almost as hens' teeth.

I am of the opinion that our friend is up against it good and hard. He will have to build up the soil to get paying crops from it, and the best way to do that is by growing clover on it. If he puts a third of it in clover, that third will not bring him anything to speak of that year. If he secures a good stand he will get a crop of hay and one of clover seed the next year if the season is favorable. Then he has that tract in condition for growing a good crop of wheat or corn. He may count on two good crops from each tract clovered, say fifty bushels of corn an acre, and as he gets two fifths of that and sells it for forty cents a bushel—he may get as high as sixty, but he should not count on it—he can see what he will have. Mind, this is tenant farming. If he owned the farm clear there would be something in it for him, but I don't see how he is going to get much out of it farming it by proxy.

#### First Improve the Land

I know men who own their farms who have this year grown sixty bushels of corn an acre, and sold the crop at fifty-five cents a bushel. That is a very good return for their labor. But I think this is an exceptional year as to prices. I know one man who contracted the crop from forty acres for fifty-eight cents a bushel, and the field averaged seventy-one bushels an acre. It was grown by himself on clover sod. I know other fields near his that did not yield thirty bushels an acre, because the land is run down and is farmed by tenants. If our friend has an income sufficient to make the payments on that farm, he would best put a good tenant on it with instructions to clover at least one third of it at the owner's expense and to build up the soil as rapidly and thoroughly as possible, charging a reasonable rent for the cropped land and applying the greater part of the income to the expense of making good soil. When the clovered land is cropped, then the owner should have a good rental, preferably a share of the crop delivered in market. If the owner can make his payments and live without calling on the farm for much, in a few years he can make a good farm of it, and one that with good management will pay a big return on the investment.

Somewhat along another line is a query from a man who says he is owner of a one-hundred-and-twenty-acre farm. He says he has a fairly comfortable house, but he finds that since two of his children have become almost grown, and naturally have some company, they are a little crowded for room, and he asks what I think about his building an addition to the house. Next year the young man will begin a two years' course at a technical school, with the probable result that he will immediately go somewhere else to live, and there are strong indications that the daughter will soon be presiding over another home. Then the three younger children will come along and another urgent request for more house room will be made. Then these children will go to other fields of labor, or at least some of them will, and he and his wife will find themselves alone in a big, empty house.

This man says his house is a fairly comfortable one for the family, but a little crowded when company comes, and not quite so roomy and pretentious as some of the houses in the neighborhood. Would I build an addition? I certainly would not. The man is getting well along in years, and when the family is gone, which will be soon, he and his wife will have no use whatever for a big house. I would not worry about it one moment. Make the old home comfortable, a pleasant place to live in, for yourselves, and let the next generation build the addition if it is wanted.

#### Build Up the Comfortable Home

I knew a man who worked like a slave to make money enough to build a big house for his boys and girls when they grew up and wanted company. He built the house, a great, roomy structure, and was proud of it, though it took all of his ready money. The new was not worn off before the children began to leave to take up other work, and in a very few years he and his wife and a servant girl were all that occupied it. One day the girl said to me, "Why, it's almost scary to walk about upstairs. When I open the windows a little to air the rooms, the wind moans through them like a lost spirit, and when one shuts a door it sounds like a gun in a great cavern. My it's awful! And just think, only us three there. When they are away late in the evening I call in the dog and lock every door, and just stay in the kitchen and keep the kettle singing."

The builder has long been under the sod, and the wife is only waiting to go, and will be glad when the time comes. The children are scattered, and the house stands there, a great monument to what a man should not do—a monument to years of hard, slaving work and economy, privation and worry, all ended now.

The thing a farmer should do is to make his home comfortable, attractive, pretty. Why not a pretty country home as well as a pretty city home? Why should the town have a monopoly of the pretty cottages? Why must a farm home be a plain, barny-looking structure?

FRED GRUNDY.

## Agriculture in Ontario

Its Development in the Public Schools

AGRICULTURAL education is at present a live question in Ontario. During last year a successful attempt was made in giving this subject a place in the secondary schools of the province, and so far as it is now practicable to judge the possibilities of the movement, it bids fair to become an important factor in molding the thought and life of the farming community. The scheme is not the passing fancy of some educational faddist, but has had the advantage of going through an evolutionary process. For nearly fifty years the idea of teaching agriculture in the rural schools has come up from time to time. On at least three occasions the necessary machinery was put into operation, and it looked as though Ontario was destined to lead the world in this phase of educational work. But, alas! the class attendance fell off, the enthusiasm of the teachers vanished and the text books, especially prepared, were laid on the shelf, while the whole attempt finally dwindled to occasional spasms in Nature study.

#### The Teachers Must be Trained First

It became apparent to those who were studying the matter with a view to profiting by the experience of past failures that the weak spot was the incompetence of the teachers to handle a subject in which they had never received any training. This suggested the experiment of utilizing the services of several graduates of the Ontario Agricultural College in a few of the high schools, thus instilling an agricultural tendency in those students who were in training as future public-school teachers. On the recommendation of a committee consisting of Prof. C. C. James, deputy minister of agriculture, G. C. Creelman, president of the Ontario Agricultural College and Dr. John Seath, superintendent of education, the Ontario government selected six high schools in the province located at Collingwood, Galt, Essex, Lindsay, Perth and Morrisburgh. To each of these was appointed a specialist in agricultural science, and an appropriation made for his salary and expenses. A very important point was the establishment of an office in connection with each of the schools. This was the medium through which it was hoped to interest the farmers in the educational work to be carried on in the schools. From that center the man in charge aims to reach and benefit the farmers. Being the local representative of the Department of Agriculture in his particular district, it is his business to keep informed as to its special needs and advise the department as to the sending of specialists to promote work of a certain kind. If the poultry man is wanted at a certain place, he will see that he is brought; if it is a question of drainage, or of forestry, or of insect destruction, he will endeavor to bring in the expert of the department to co-operate with him. He is also expected to keep in touch with all local agricultural organizations, farmers' institutes, agricultural societies, horticultural societies, fruit associations, etc., and endeavor to work in

harmony with them. The holding of short courses in different sections of the country have proved to be an important feature in popularizing the work. In one section these short courses may be in horticulture; in another a short course of live-stock judging may be carried on, or it may be that a course on soils, seeds and weeds may be what is desired. It will be seen that there are no hard and fast regulations, the work being adapted to the views of each locality.

Now a word in regard to the system of instruction that has been inaugurated in the high schools. A course was drawn up and incorporated in the regular curriculum, so that a boy who has passed the entrance examination may take up a two years' course in agriculture, receiving at the same time a training in English, mathematics, science or other subjects; that is, he may, in taking his full high-school course, at the same time receive instruction in some agricultural science that will be of service to him in his life work or that will qualify him to enter the second year for a more extended course at the agricultural college. This plan is laid before the farming public as an opportunity for their boys to receive secondary education which will have a direct and practical bearing upon life on the farm, and which will tend to educate the boy back to the farm instead of away from it. Emphasis is placed on the value of the course as a means of sharpening the boy's observation, of developing his judgment, of giving him new and up-to-date ideas, of saving him many hard lessons by experience, of giving him an insight into the "why" of many farm operations, and adding perhaps to his knowledge of the "how," while at the same time increasing his general efficiency and making a better citizen of him.

#### The School Experiment Plot

For the dual purpose of making still more practical the course in agriculture, and to deal with some of the problems in crop growing with which farmers in the county are contending, each school has attached to it a plot of ground devoted to experiments. On account of differences in soil and climate in parts of the province that are far removed from the Ontario and Dominion experiment stations, the work being performed at these institutions does not always apply equally as well. This makes the similar work in connection with some of these high-school districts of more than ordinary importance.

It cannot be denied that the field of labor to which these agricultural missionaries have been sent is a pretty big one. But while the amount of work to be accomplished was appalling, the opportunities were great and the possibilities far reaching. Each was given a free hand, and on his energy and ability depended to a very large extent the success or failure of the venture. That they have made good and the teaching of agriculture in the secondary schools of the province may at last be considered a reality is the general verdict.

J. HUGH MCKENNEY.



# Around the Farm

## Items of Interest and Value to the Progressive Farmer

### Drainage Increases the Farm Value

SOME extensive drainage operations are under way on Illinois farms this fall. The accompanying pictures illustrate the effort of W. F. Deutsche, a farmer who owns two hundred and forty-eight acres of land in Monee Township, Will County, to increase the value of his land from fifty dollars to one hundred and twenty-five dollars an acre.

The most of his land is now worth close to the latter figure, for already he has done a large amount of draining. A large, district, machine-dug ditch runs through his place. He drains into this canal and into a pretty little lake that he created on his place by building two dams and by running tile lines to aid the natural springs to keep the lake well filled.

Mr. Deutsche is now at work improving a tract of fifteen acres of land that lays low. This farmer allows no guesswork to be done on his place in the construction of drainage systems. He employs an engineer of experience to map out the drains, and then requires the contractors to follow the stakes. The ditches average three feet in depth. On this tract he will use one thousand twelve-inch tile; five hundred ten-inch; three hundred eight-inch, and the balance will be four-inch in size.

Mr. Deutsche estimates that the entire work will cost him five hundred dollars, not counting his own labor in hauling and distributing the tile.

Farmers are no longer content to drain their low land only. An increased number are draining out that which lies higher, until whole farms are completely drained. The operations in manufacturing and selling of drain tile are as active as ever, and a large number of the larger sizes are being made use of. Most of the drainage systems are laid out by competent engineers.

J. L. GRAFF.

### Parcels Post and the Country Merchant

COUNTRY storekeepers generally do not want a parcels post. They do not invite outside competition. In their estimation it is not a "square deal" for the farmer to send his money out of town, perhaps to a city five hundred or a thousand miles away, for goods that they think he ought to purchase of them, even if a little higher in price. "Patronize your home institutions," they say.

But a good rule should work both ways. As it takes two to make a quarrel, so it takes two for a "square deal."

For more than a quarter of a century I have made it a rule to purchase my groceries and hardware, etc., from the merchant nearest to me, so long as he will sell me just as good goods at the same price as another merchant keeping store a little further away. In some cases I did not object to paying slightly more. For instance, if we send for the goods or have to carry them home, instead of having them delivered, I buy sugar from my nearest merchant at six cents a pound, in preference to buying in Niagara Falls or Buffalo at five and one half cents. In other lines, however, my patience is often sorely tried, in fact, beyond the breaking point.

Our cows happen to be dry for a few weeks. We have to buy butter. The home storekeeper asks me thirty-five cents a pound. A city storekeeper delivers a better grade of butter in this vicinity at thirty cents a pound. We use four pounds a week. Thus I pay an extra twenty cents a week to my storekeeper on this article alone, just for the privilege of "patronizing home institutions." Later on I have butter to sell, and this of the regular gilt-edged kind, too. I offer it to the merchant. Evidently he is not anxious to take it. He will take it "to accommodate a regular customer" at a figure far below his selling price. He may be ashamed to offer me twenty-five cents a pound, the price he pays for his Western creamery butter, when he has been charging me, and is now charging others, thirty-five cents a pound for a poorer grade than mine. And so it is in other lines.

The villagers want us to spend our money in our home town. But it is a rather one-sided affair. Says New York "Farmer": "The same villagers, when they find the farmers' prices for hay, apples, cabbage, corn, buckwheat, meat or other produce higher than they are in other parts of the country, promptly send

to remote parts of the country for their supplies, and leave their neighboring farmers with produce unsold." I am never having any trouble in selling all my good produce directly to consumers at fair prices. The trouble is with the merchants, both in buying and selling. They enjoy the benefits of a tariff wall of high express rates built around the community which impedes or prevents direct small-scale dealings between the farmer as purchaser and the merchant's competitor or the manufacturer at a distance as seller,

service. Yet there are many other things which we need, and which they do not keep, and for which we have to send out of town or go without. There are repairs for stoves, furnaces, lamps, implements and other equipments; there are seeds, books, flowers; eggs for hatching or chickens for breeding, and a long list of other things that may be needed from afar. Often the express charges on these articles are a number of times the purchase price and intrinsic value of such things. Shall we forever be compelled to



View of One of the Ditches Ready for Laying the Tile

on one hand, or between the farmer as producer and the consumer at some distance as buyer, and which calls for the services of one or more middlemen, the merchant being the principal one.

Under such circumstances it is but natural to expect the country storekeeper to be opposed to the parcels post. Until its establishment, the farmer will remain to a great extent at the mercy of the storekeeper and of the express companies. - The parcels post, and rates corresponding with those operative in European countries, would soon bring producer and consumer in close touch and eliminate middlemen's charges and profits. If I received an order by mail or telephone from some one in the nearest city, or from fifty to a hundred miles off, for a

pay the excessive express charges on these goods, simply because the country merchant desires to hold his soft snap selling to us goods for which he may charge just what he pleases?

Let us keep at it! Congress and the express companies will have to yield in the end. It is the people who will rule.

T. GREINER.

### It Pays to Store Ice

FROM my own experience I have found that the keeping of ice does not altogether depend upon the cost or the kind of house in which to store it, but rather upon the observation of a few simple rules in the construction of the building. Ice can be preserved in any place that



A Two-Acre Lake on the Deutsche Farm Into Which a Line of Large Drain Tile Empties

five or ten-pound pail of butter, or a couple of chickens or capons, or a box of celery, etc., I could forward these things by mail at far less cost than the storekeeper or butcher, if I had to sell to him for reselling, would charge me as his share of the profits on the transaction. Or if I had to buy certain things, my order could go forth by mail or telephone, and the goods be delivered to me by the mail man at small expense.

We can get the staple articles kept generally in country grocery stores or hardware stores in this way, provided we live within the territory of their delivery service, and possibly we may be satisfied with their goods, their prices and their

will hold sawdust, keep out the rain and has good drainage.

One thing very frequently neglected is ventilation. I am confident that the reason some do not have good success in keeping ice is because they keep their storage house too tight. There must be plenty of air circulating over the top of the ice to carry away the moisture, for if moisture is confined in the house it will be a detriment to the ice.

The way I have managed to keep a plentiful supply of ice for home use is by taking into use an old log barn that has passed its usefulness for other purposes. I filled it in with gravel to about six or eight inches above the outside

ground, and cut a trench about one foot deep all around the building; this affords perfect drainage without the use of tile. I put in an inner wall about one foot from the outer wall and filled the space between them with sawdust.

A space about one foot wide is sawed out under the eaves on each side. Neither of the gables opens directly to the outside, but into lofts. The material I used for making the inner wall was scraps of lumber that are usually found lying about most farms. The door from which the ice is taken out during the summer is on the south side and exposed directly to the sun. I have found that as the ice is taken out and the door left open, it keeps better than when the door is closed.

When storing the ice, I cover it immediately, because if warm days come the blocks will likely melt and afterward freeze solidly together.

WM. H. UNDERWOOD.

### Just a Hint About Farm Conditions

I AM a farmer, live among farmers and have noticed farm conditions in various regions.

Of course, we need better roads, and if President Roosevelt or any one else can give them to us, without too much taxation, we will be greatly benefited. Better roads would help us to better markets and would remove one of the greatest disadvantages the farmer has to contend with. In winter it requires two or three teams to haul what we should be able to haul with one.

Now, I wish to say something that may be old or new, but which I know has a great influence over existing conditions on the farm. If any one wishes to laugh, let him laugh and enjoy it; it will not so much as give me a jolt, for I know whereof I speak. I am something of a student of cause and effect, and have used my eyes and ears.

Every one will acknowledge that it is becoming more and more difficult to keep the young men and boys on the farm; but I believe very few even guess at one of the most powerful influences at work to draw them away. Ever since the world began, woman has been the real "power behind the throne." So she is in this case.

Quite often it is the young man's mother or sister—but more often it is the other fellow's sister—that causes him to leave the most healthful, helpful and honorable of employments. The average girl prefers the man in "store clothes," even though he be minus morals, money or brains, to one in overalls, even if he possesses all these and more.

The young farmer of to-day is more intelligent and better educated than ever before, but he can't plow, handle fertilizers or work in the harvest field and always look as if he had just stepped out of a band box. Consequently, the young minister, doctor, lawyer, professor, or even the poorly paid clerk, is always preferred by the average young lady.

Naturally the young farmer resents this, and the result is, he leaves the work he is best fitted for—where he might have been independent—and if possible pushes himself into one of the already overcrowded professions, where the best he can hope for is mediocrity and dependence on the whims and fancies of others.

Of course, I believe in education, for it is useful to all, and especially so to the farmer, who really should know a little of everything—the more, the better.

Then, it isn't the most intelligent, best educated young men who leave the farm, nor is it the educated, intelligent young woman who looks down on the farmer and drives him away. People with the greatest general knowledge of the world hold the farmer in highest esteem.

Undoubtedly the young men to the manner born have the greatest chance of success at farming. If they continue to leave, what will the result be?

If the President wants his influence to help the farmer, let him teach others that the farmer is more independent and is better, morally and physically, than the average professional or business man.

E. A. WENDT.

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# Investment of Farm Profits

## Part I. Investment of Surplus Income at Home---By Prof. F. W. Card

THE farmer who is successful and out of debt should have some surplus funds to invest. Where shall he put them? Outside investments often appear especially alluring. He hears of profits which are being made in various lines, or watches men who seem to be living well and making money in various ways, and feels that profits are much better there than on the farm. The promoter may secure his name and flood him with letters offering "rare opportunities" which promise handsome returns. Of these latter he should beware. Too often they turn out far different than he expects. They should never be bought except after careful investigation and the advice of a banker or some one who is competent to judge of such things. Even the banker may lead the farmer astray. He has more experience in these matters, but his judgment is as likely to be at fault as that of other men. As an instance of this I may mention a case where a banker of wide experience suggested a certain preferred stock as a safe investment, and in fact put some of his own money into it. At the time this stock was selling just at par. Within a few months it had fallen to sixty or less. The man who put one thousand dollars into that investment then found it worth only six hundred. This is in a class not considered speculative, being the stock of a large railway system doing a heavy business. In time it will probably reach its former price, but if it became necessary to realize on the investment there would be a heavy loss.

Outside investments are not to be condemned in toto. For the man who has the capital to spare an investment in safe, conservative bonds or stocks yielding a certain steady income is a most welcome addition to the farm and family resources. Such an investment should preferably be in readily salable, non-fluctuating securities which may be quickly disposed of in case of special emergency or unusual opportunity in connection with the farm business.

### Farm Investments

The main opportunity for investment, however, should be sought in connection with the farm itself. The old adage which advises us not to put all our eggs in one basket is reversed by Andrew Carnegie, who says that the right thing to do is to put them all in one basket, then watch that basket. The farmer is better able to watch the farm basket than any other, and his eggs will generally be safer there, with more likelihood of a satisfactory hatch. The successful men are usually the ones who devote their energies to some one business and develop that one to its fullest capacity. Few men are able to prosecute several lines well. We may well first look to see if it does not offer some opportunity before looking outside. Few things will pay better. What are some of the lines in which money may be profitably invested?

### Building Up Fertility

I place farm fertility first in the list. No one thing has more to do with the financial returns than the fertility of the land itself. Large crops are the kind that bring profits, and without good soil large crops are not to be had. Fortunate is the farmer who can begin with a fertile soil, but all are not fortunate in this respect, and indeed few farms are so fertile that their productiveness cannot be increased by proper management. Few investments will pay better returns than money wisely expended in building up the fertility of the soil itself. I wish to emphasize the word wisely, for it is easy to waste money in this attempt if it is not carefully expended. The purchase of commercial fertilizer may yield a high return on the investment or may result in loss. Much depends upon the intelligence with which it is used, its adaptability to the crop in hand and to the soil, and the other methods of treatment which accompany it. As a rule a judicious use of fertilizer will pay a much higher return on the investment than will any bond or stock which can be expected to have even a semblance of stability and security behind it. That has been the experience at Morningside Farm, and I am confident that a much heavier investment in this line would pay well if the money were at hand to do it.

Even better returns than from fertilizer may be had on most soils by methods of treatment which will add to the supply of vegetable matter in them. Plant food is not the chief factor in soil

fertility. The mechanical condition of the soil itself is even more important. Whenever I can get a good supply of decaying material in the soil I can look with assurance for a good crop, even on our high and naturally poorer soils. Careful attention to cover crops, seeing that there is something growing in the corn fields to occupy the land as soon as the corn is off and to furnish something to turn under, will pay well for the cost of getting it there.

A liberal use of clover seed, even at the high prices which have prevailed in recent years, will do much to increase fertility and will yield a most excellent return for the money invested, unless there is failure to get a stand. With a good supply of humus in the soil this is not likely to occur. Clover will not only add to that supply and put the soil in the best possible condition for succeeding crops, but will also increase the nitrogen supply, the most expensive element of plant food.

### The Type of Farming

The type of farming preferred will influence materially the trend of the farm investment. Two somewhat distinct, and in a measure opposing, lines are open. It may be the aim to develop the business and increase the size of the operations as much as possible, or it may be the wish to keep the undertaking on a modest scale where the labor of the farmer himself can be made to count for most. The one plan affords opportunity for greater business and executive ability, the other offers more freedom from care and annoyances, with sometimes a surer if smaller profit. Some of the farmers who seem to enjoy life most belong to the latter class.

### More Labor

When the aim is to develop a business, the employment of more labor is often one of the best ways to utilize available funds. A factory is built to employ so many looms and a certain number of hands. The owner does not allow part of these looms to stand idle in good times for lack of men to run them. The farm is more elastic and may be conducted with varying amounts of labor. Too often it is like the factory with most of its looms unused. Few farms are worked to anywhere near their full capacity. The most profitable point may not be at their full capacity, but it is likely to lie much nearer it than the average working one. Many fixed charges, such as interest on the permanent investment, depreciation and insurance on buildings, etc., remain approximately the same, whether much or little is done. If the addition of one dollar in labor will increase the returns more than one dollar, it is good business to use it.

### More Intensive Crops

Hand in hand with the employment of more labor will go the growing of more intensive crops, if the development goes very far. To begin with, more intensive culture of the ones already grown may pay better than choosing more intensive ones, but there is a limit to this. More intensive crops are not necessarily more profitable crops when the whole investment is considered, a fact which agricultural writings may sometimes lead us to forget, but they do enable the farmer to greatly increase the size of his business with approximately the same working plant. Many factors enter into this problem. The adoption of such crops may demand an entire reorganization of the work, and such changes should be made only after careful consideration. The crops chosen need to be such as are well adapted to the farm and the market and such as will fit well into the other operations being carried on. The fact that a given crop is a profitable one is not sufficient reason for me to grow it. It might displace or cause me to neglect one which is even more profitable for me, or seriously disarrange the entire running of the machinery of the farm enterprise.

### Full Equipment in Some Line

One great hindrance to the success of the general farm is the fact that it is seldom fully equipped. There may be a large equipment on the aggregate, but no one line has a complete outfit. This means that all the farm operations are carried on at a disadvantage when compared with the work of the specialist. A full equipment in some line, one at a time, beginning with the more important ones, will afford an excellent channel for

the investment of some surplus funds. This ought to lead to the dropping off of some of the least important things, with a well-chosen line of specialties which can be produced at a maximum of profit. No unimportant line will warrant a full equipment, for the fixed charges constitute too heavy an expense.

### Improvement of Waste Places

Waste places are a dead weight upon the farm enterprise. One can ill afford to pay taxes on useless acres. If at reasonable expense they can be transformed into productive acres, the investment should prove a good one. One may even be willing to pay too dearly for such improvement for the sake of being rid of unsightly places about the farm. As a rule, however, the cost should be carefully considered. If the value of the land will not warrant the outlay demanded to put it into good condition, then it may be possible to put it to some use which will at least yield some profit. Rocky lands planted to apple trees grown under the mulching or pasturing system may pay a better return than such land under cultivation. Land which affords good permanent pasture is always valuable, and forest land is sure to give steady returns in the future.

### Better Fences and More of Them

This will not apply to all farms. Much has been written about doing away with useless fences. No useless fences should be maintained, but useful ones should be, and should be kept in good condition. Very many farms do not have sufficient fencing to provide for the proper division of stock at pasture, and far more do not have fences in such repair as to afford a sufficient barrier to stock at all times. The loss of time caused by stopping important work to chase stock and repair fences amounts to a heavy item on many farms. Lack of a sufficient number of small pasture lots is particularly troublesome in the management of swine.

### Good Stock

The purchase of first-class, pure-bred stock is one of the first lines of investment to be considered by the stock farmer who does not already possess such stock. No argument is needed to emphasize the added value of pure-bred animals. They may produce no more, but their selling value is far more than their added cost of production. The greater esteem in which they are likely to be held by the owner will usually induce better care, which in turn will bring better returns. So many farmers make the mistake of shifting about from one breed to another, while the few who stand by one and strive to improve their herd seldom fail to attain success. The beginner may well afford to start with a few pure-bred animals rather than a larger herd of no particular breeding.

### More Feed

Some farmers have learned the secret of liberal feeding, but more have not. Feeding to the point of wastefulness should never be encouraged, but this so seldom happens that it need hardly be mentioned. The danger lies in feeding much less than the most profitable production calls for. It is only that in addition to a maintenance ration which yields a profit, yet how often this point is little more than barely passed. Investing money where it will produce more feed on the farm or in the purchase from outside may yield a most excellent return. On a dairy farm investment in the extra labor which will provide for a regular system of soiling crops during the growing season may be one of the profitable lines in which to employ available capital.

### Buildings and Equipment

Lack of sufficient building equipment is so common as to be almost universal. Even where there are buildings enough for the farm needs they are often inconveniently arranged, so that the cost of carrying on the work is materially increased thereby. Too much study can hardly be given to the problem of arranging buildings in such a way as to economize steps and labor in doing the farm work, especially the care of stock.

Storage room for implements and material is one of the most common needs. At Morningside Farm we have two good barns, one of which is considered a large one; but there is constant need for more room for the farm implements and

wagons. An implement shed with sides chiefly doors, and an upper story for lumber and similar things, is needed on every farm. Depreciation is a heavy tax on the cost of implements at best.

A good root cellar would prove an excellent investment on many farms. With the era of corn silage we have come to underestimate the value of roots. The increasing cost of grain, with the consequent difficulty of feeding it at a profit, makes it important to provide all possible substitutes which can be used without detracting from results. In the feeding of swine, colts and horses, particularly, much can be saved by a liberal use of roots. The storage problem is often one of the troublesome ones, but a good root cellar quickly dispels this. Where potatoes are grown the same cellar will do.

One of the best lines of equipment which any farm can have is a good workshop well supplied with tools and materials for needed repairs. Breakage and loss of bolts and nuts is of constant occurrence and there is frequently much loss of time from not having the needed things at hand with which to make repairs. Such a shop may well include a forge and a few blacksmiths' tools for doing the simpler kinds of ironwork.

On some farms a cold-storage room would prove a good investment. On the larger fruit farms a regular storage house is considered a necessity, and on the general farm there are often times when it would pay well to be able to hold perishable products for a time.

### Farm Power and Machinery

Readily available power is a great convenience on every farm, but one of the difficult problems to solve. It is likely to be needed for so many different purposes and in so many different places that it may not be easy to provide for all these needs. What shall be the form of power provided will depend upon the needs of the particular farm and the preference of the owner, but on many farms it will prove a profitable investment.

There is less need for suggesting investment in farm implements than in almost any other line. Good implements, well adapted to the work in hand, are always demanded, but agents are numerous and persuasive and the farmer with money to invest is more likely to buy a machine for which he does not have sufficient use than to do without one which he really needs. Interest, depreciation and repairs on implements constitute heavy charges and should not be increased when not necessary.

### The Home

This discussion thus far has referred only to the business of the farm. This is but one side of the enterprise. The farmer is fortunate in being able to develop his home and his business together. The business should not be pushed too far at the expense of the home. Opportunities for profitable investment on the business side are never lacking. In seeking to embrace them the home is too often neglected. We need to remember that the farm should be conducted for the benefit of the farmer and his family. We are apt to get into the way of acting as though the farm itself were the chief concern and that we are to minister to its demands rather than that it should minister to ours.

A comfortable and attractive house should be the first consideration, but this often calls for more capital than can be spared. Until that time much can be done to improve the old one. It can be provided with many conveniences which shall make the work of the kitchen easier and pleasanter. Furnishings which can be readily transferred to the new home may be provided. Books and magazines are as much in place in one as in the other.

A good lawn and simple, tasteful planting will render almost any home attractive, no matter what the character of the house itself may be. These things cost but little and make a wonderful difference. The lawn should be kept unbroken in the main, with the planting in groups about the buildings and the borders.

A good home fails in its purpose unless the work of the farm can be so arranged and organized that there is some time to enjoy it. Farm duties are very exacting, especially on dairy farms. Unless exceedingly well planned they will absorb the whole time and strength of the entire family, leaving no opportunity for enjoyment.



# Review of the Farm Press

## What Others Are Saying About Important Farm Matters

### Value of Drainage

WHILE this has not been a year of excessive rains, in many sections there was an oversupply of water in the early spring as well as in the early summer. Seeding of small grains was delayed. Corn was not planted as early as desirable in many cases, and later on, when this crop needed cultivation, it was impossible to do good work with the cultivator in low, wet places in need of drainage.

When the soil finally dried out in these low areas it frequently appeared as though cultivation did more harm than good. This was particularly true of soils having a tendency to bake. When the drought began in July the physical condition of these low soils was such that they lost moisture much more rapidly than the well-drained soils which it had been possible to cultivate thoroughly throughout the early summer, and over which a good soil mulch had been maintained. In other words, the entire season, both the wet and dry portions thereof, was particularly unfavorable for all soils needing drainage.

Nor was this an unusual condition. Poorly drained soils always suffer more under adverse climatic conditions than those that are well drained. A well-drained soil is not only able to rapidly dispose of excessive quantities of moisture, but it is also able to supply more moisture in dry seasons, because of greater moisture-conserving power.

In spite of the fact that the total 1908 corn crop in the United States is larger by fifty million bushels than that of 1907, there was a material decrease in the yield an acre in some of the big corn-producing states where a large proportion of the soils are in need of drainage. For instance, the yield an acre in Indiana this year was 30.3 bushels as compared with thirty-six bushels in 1907. In Illinois the yield this year was 31.6 bushels an acre as compared with thirty-six bushels in 1907. In Missouri the yield was twenty-seven bushels this year as compared with thirty-one bushels last year. These low averages in the states mentioned were due to the low yields on the soils in those states that are in need of drainage.

Those very soils whose physical condition was injured this year because of the excessive moisture of the early spring and the drought later in the season will not produce as good a crop next year, regardless of climatic conditions, as they would had their physical condition remained good. This illustrates the great loss the farmer annually sustains due to lack of drainage.—Farmers' Tribune.

### Those Loafing Acres

How many acres have you that are not yielding a profit, nor even making taxes and interest?

Every day, as I travel over the country I see fields which are claimed to be worth a hundred dollars an acre, with a swale running across, a couple of stone piles in a corner, or a few scrawny, half-dead apple trees scattered over them. These acres are loafing, and what is worse, not only loafing, but costing the farmer hard-earned money every time he sends a man into the field to work, as the value of time wasted in turning around such obstructions is very great.

With the heavy machinery in use in modern agriculture a man must have a clean sweep across the field if he is to be successful. Often a few dollars would put in an underdrain and transform a worthless swale into fertile land. The same amount would take out the stones or root out the trees. Trees are all right in their place, but their place is near the fence, or in a clump by themselves, not scattered all over an otherwise profitable field.

Often we see several acres of rough land which is not in a shape to be cultivated, loafing in weeds and brush, between live, producing fields, simply because the farmer has not the ambition to fence them in. If such land cannot be put under cultivation with profit, it should be fenced and turned into pasture, or if the farmer wishes to grow trees, let him set out some useful variety; but he must not allow the land to loaf away with his profits, growing weeds, brambles and brush, for though many farmers do not seem to know it, there are just as many weeds in the shape of worthless trees as in ordinary crops.

Another way in which your acres loaf is by growing crops in small patches. Here not only the land loafs, but also

the farmer, the hired man and the teams in time spent in turning corners, and wasted in cultivating small patches. In order to succeed with modern heavy machinery the farmer must be able to cultivate long stretches.

Cut out all parts of your farm that are loafing and not producing, even if it takes half your farm, and run the rest on a short rotation with clover or other legumes, and you will produce more crops, with one half the man and team labor.

### The Farmer's Land Should Be Used as His Bank

Another way of allowing your land to loaf, and especially in the older portions of the country, is not to supply sufficient plant food to bring a profitable crop to maturity. The farmer's land is his bank. A part of the plant food is made available each year from Nature's inexhaustible supply, the rest must be supplied, and if he takes it out faster than it is renewed, his crops will fail. How sad it is to see a farmer plow, cultivate, sow, harvest and thrash half a crop from a field, when with the same amount of labor he could have prevented his field from loafing by supplying the amount of plant food needed to grow a full crop, as is done by successful farmers all over the country.

What to use can only be found out by experience and advice from the experiment stations and practical farmers; but if clover and other legumes are grown, and a large amount of manure made, very little nitrogen will be needed. But it is probable that the mineral plant food will be deficient, especially potash and phosphoric acid, which can be obtained separately as potash salts and acid phosphate, or in mixture, prepared especially for those farmers who rely on atmospheric nitrogen. As a usual thing, however, farmers of the latter class have fewer loafing acres, and they produce maximum crops on clean fields supplied with sufficient potash, phosphoric acid and nitrogen, as shown by carefully conducted tests with the plant-food elements. To the farmer with loafing acres I can only say: Get rid of loafing acres and other loose ends first, then you will be in a position to emulate the example of the "close to Nature farmer."—G. Fred Marsh in the Southern Planter.

### Success With Hot Water

IN THE fall of 1898 I began looking up the subject of house heating by some other method than by stoves. As my house covers quite an area, not one of the furnace men would agree to heat the house properly with hot air, except by putting the furnace in the vegetable cellar, and this I would not have, so I turned to the system of hot-water heating. This system I had put in at the cost of three hundred dollars, including the board of two men who installed the plant, and drawing material from the railroad station. The boiler is placed in a room by itself, in the cellar, and all the dust and dirt is kept there. It is covered with an asbestos jacket to retain the heat, and all the pipes that lead to and from the boiler and radiators are also covered. I heat ten rooms, the rooms on the first floor having nine-foot ceilings, with four hundred and eighty feet of radiation. I find the stove coal the best for the boiler, have used only seven tons during a winter, with the exception of a very severe winter, which took eight.

Although the first cost of hot-water heating is more than the hot air, still the difference is soon saved in the amount of coal used and the results. We are more than pleased with the system; every room is heated perfectly. The doors from one room to the other are always left open, and I had no trouble in keeping the heat in the rooms up to seventy-two degrees when the thermometer outside registered seventeen degrees below zero.

One great advantage this system has above the steam heat is that when the fire in the boiler goes down and the water cools, it circulates just the same, while with the steam, when the heat is below the boiling point no steam is formed and the heat in the radiators at once stops. During the years that I have run the boiler I have found nothing that could be improved, so have come to the conclusion that the most important thing to do is to get a good boiler, one made for this express purpose.—The Rural New-Yorker.

### Killing Hogs on the Farm

IT is possible for all farmers to have an abundant supply of pork of the best quality the year around if they give proper care and attention to the hogs at killing time, which should occur in cold weather, as soon as the hogs have been finished with corn and other food to make the quality desirable. Dividing the time of killing into several periods, one can provide fresh meat from October until April. For a change of meat diet occasionally kill a lamb or a beef and exchange with the neighbors.

#### Killing Hogs Early

We find that early winter is the most convenient for slaughtering the year's supply, thus giving the meat the required time for curing before warm weather. It is necessary to get the meat thoroughly cooled and in a firm condition before cutting and packing. Withhold food from the hogs for twenty-four hours before slaughtering them. This makes it more convenient for removing the entrail fat, which can be successfully accomplished while retaining the animal heat.

#### Avoid Undue Excitement

A bullet from a gun or a tap on the forehead with a hammer will not excite the animal. Running them down with dogs, etc., should not be permitted. Avoid all excitement, in order to have the blood discharge freely. If the flesh retains any blood the meat cannot be cured successfully and will spoil in hot weather. Soon after they are stunned, turn them upon the back, have an assistant to hold the legs, etc. The operator should use a medium-length knife with a keen edge, making a clean cut in front of the breast bone, then turn the blade and thrust it full length toward the tail, turning it quickly from right to left to sever the veins of the neck, avoiding a side or shoulder stick. Let the hog rise to its feet to finish bleeding. Before killing, have water heating, platform built, gallows erected, gambrels and spreading sticks all ready.

#### A Good Scald Essential

Bring the water to the boiling point, put in a small quantity of wood ashes, sal soda or tar, which will help to loosen the hair and remove scurf from the skin. Boil briskly a few minutes, and remove the water to the scalding barrel, which will make it about the right temperature for use; if not, add cold water. Avoid a hot scald; it sets the hair and makes the skin tender. Place a hook with a handle in the hog's mouth, then sling the back half of the body into the scalding barrel; churn up and down several times, pulling it out occasionally to air. Reverse the hog, cut open the ham strings, insert the gambrel and scald the front end the same way. Test the scald by pulling the hair on the legs and ears. If it comes off freely the scald is sufficient. Pull the carcass onto the platform and scrape off the hair quickly, removing it from the legs and head first. Return the water from the barrel to the kettle, and have it heating for the next. After the water has been used or tempered, subsequent scalds will be more successful.

As soon as the hair is removed, hang the hog upon the gallows by placing the end of the gambrel through the ham strings, wash the carcass thoroughly by dashing on hot water and scraping toward the head, with a keen blade removing all scurf and surplus hair, then drench with cold water, and continue the same operation until the body is cleaned satisfactorily.

#### Remove Insides Carefully

It tests the skill of the operator to remove the entrails with despatch and cleanliness. Prepare to do so by drawing a sharp knife down the body from rectum to sticking point, using great care not to cut into the intestines. Have a basket or tub ready to receive the entrails, removing the fat therefrom while warm. Cut out the heart, liver, lights, windpipe and tongue, usually together. Place a cob or a piece of wood in the mouth, to hold the jaws open, and the spreader sticks about half way down the belly, to open the side, then proceed to dash in clean, cold water and wash inside perfectly clean. Let the carcass hang on the gallows until cold and firm, but not frozen. It will not absorb salt or cure as effectively as unfrozen meat.—Richard H. Stone in The National Stockman and Farmer.

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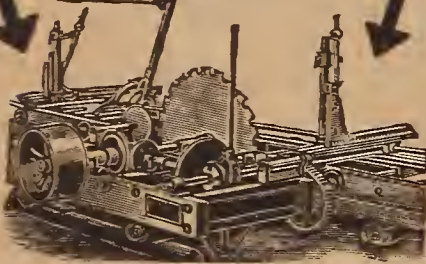
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# Gardening

By T. Greiner

### The Little Greenhouse

I would not urge the average farmer to build a little greenhouse under the pretense that he would find it very profitable from a financial point of view. It costs money to build even a small affair of this kind, and it is a lot of trouble and not a little expense to run it during the winter. Just at this time it appears to be even more than doubtful to many whether forced vegetables, such as lettuce, radishes, etc., can be grown in large houses, on a commercial scale, with profit to the grower.

I know that I would have to sell my produce of this kind, grown in my small house, for a very fancy price in order to pay me for all the trouble and expense of raising it. But I am willing to pay well for the fun of having a winter garden—for the green stuff that comes on my table at a time when other people have none, and for the chance of spending an hour or two a day working with my plants, and with the soil in the comfortable temperature and atmosphere under the glass roof at a time when snow covers the fields and all the water courses are ice bound.

The well-to-do farmer who loves gardening, and appreciates the fresh vegetables which he could produce during the winter for his table, or likes to see his wife and children "fuss" with flowers and plants, might do much worse with a hundred dollars or two than put up a modest greenhouse or a conservatory as an annex on the south side of the dwelling house.

A house intended for service during the winter, however, should always be heated by means of a hot-water heater. It can be heated by means of a fireplace and a flue, either with wood or coal. But this plan entails a good deal of trouble and increasing care and worry. If to be used merely as a plant house (for vegetable plants), to be started up toward the end of February, the fireplace and flue plan would work very well. Many small plant houses are run that way quite successfully. With a hot-water heater, however, we have an easy time, early in winter or late.

To the well-to-do farmer, therefore, a little greenhouse may be a convenience and more or less a luxury. But the case is different with the market gardener. It is impossible for him to do justice to his trade, to secure best results, without the possession or use of a plant house. In his case it is the early bird which catches the worm. If he cannot start his plants early, he cannot sell early plants or early vegetables, and in them generally the profit lies. The structure may be simple, home made, of cheap materials, as they are found most available on the farm, with ordinary hotbed sash used for roof, etc., but it may be made helpful and profitable, nevertheless.

### Cauliflower Seed

One of our friends in Oregon writes that the climate of that region is practically the same as found in the Puget Sound region. He does not see why he could not raise good cauliflower seed as well as people about Puget Sound. Probably he could if he tried.

I have had seed directly from growers in the Puget Sound region that gave excellent results, being much plumper and giving stronger plants than seed imported from Europe. Little difference, however, could be seen between the heads grown from this seed and those from European seed.

The American seed has never become popular among either seedsmen or market gardeners, although it can be had much cheaper. I do not know whether

our seedsmen use and sell much of it. At any rate, they seem to be afraid to speak of it or advertise it. Nobody should imagine that growing good cauliflower seed is either an easy or an inexpensive undertaking, even under most favorable climatic conditions. There are a great number of particular points about it that have to be learned and observed, and before anybody can engage in it with any hope of success he will have to study the business very closely.

Mr. H. A. Marsh, of Puget Sound, was the pioneer grower of cauliflower seed in that locality. A general brief account of the business is given by him in "The Cauliflower," by A. A. Crozier, published in 1891.

On Long Island some seed has been produced by starting plants in July, holding the partially developed plants over in cold frames or cellars until spring, then transferring them again to open ground to bloom and produce seed. Good seed is expensive, but we must have it, and I still rely on my regular seedsmen to furnish it to me.

### Chicago Giant Celery

From the general characteristics of the Chicago Giant celery on my grounds this last year I suspected it to be a cross between Giant Pascal and White Plume Self-Blanching, or a sport of one or the other of these. The introducer of this fine new sort tells me that this new self-blanching "Giant" was found in a field of Pascal in Wayne County, New York. Whether cross or sport, however, nobody can give any definite information. The chances are that it is a self-blanching sport of the Pascal, and one of remarkable vigor besides.

### The New Celery Culture

Questions in regard to newer experiences with the close-planting system of growing celery, known also as the "new celery culture," frequently come to me, and I may answer them in a general way by saying that I do not now practise it.

I aim for quality, not merely for quantity, and while the new celery culture gives us the highest possible amount of stuff on a given area, an immense lot of stalk and leafage, the celery thus produced is not of the whiteness, the sweetness and brittleness of the plants grown by the older boarding-up or earthing-up methods. Even White Plume remains greener, and stronger in flavor, when grown in crowded beds than when planted in single rows and blanched in a proper manner.

I usually make my rows four feet apart, and aim to set the plants six to seven inches apart in the rows, and I select for these rows the very richest spot that I have available in my garden. This gives us celery that is worth having.

Perhaps some of our readers are practising the "new celery culture." If so, let us hear about it, and what success you are having with it.

### Hand Plant Setters

A California reader sends us advertisements (cut from some catalogue) of a hand plant setter, and asks our opinion about it. In 1893 I got one of these hand-planting devices at the World's Fair in Chicago. I thought at the time that we might use it for setting out our onion plants.

In clean, sandy soil, in best condition for plant setting, such devices do very well; and yet we can set plants with the fingers, or with a dibbling device, quite rapidly and conveniently under such circumstances. But when the soil is a little too damp or sticky, or not perfectly free from clods or gravel or rubbish of any kind, or in stronger loams, etc., we have more trouble with hand planters than with old-fashioned hand tools, dibbles, trowels, etc. And when we want to set cabbage plants, strawberry plants or similar plants by hand, there is no device I have yet found that can beat a common sharp spade or the crescent-shaped sod cutter such as I usually use for the work.

With a youngster to carry the plants, and stick one into the opening made by the sharp tool across the row, the person handling the spade or sod cutter can walk along, doing the planting, at a fairly good pace. Yet there may be people who will just get the hang of handling one of the special hand transplanting devices, and do good and rapid work with them. There is nothing like trying.



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# Fruit Growing

By Samuel B. Green

## Spraying Experience by a Fruit Grower

NO FEATURE of our horticultural work has caused more anxiety and intense interest than the protection of trees and fruit from insect pests and fungous difficulties. Several years ago we thought that we possessed all knowledge upon the subject; to-day our most thorough experimenters cross this threshold with the caution of the mariner embarking upon an unknown sea. Men of every walk of life have become alarmed at the threatened destruction of our fruit orchards and vineyards, and this, too, at a time when we are changing from a nation of steak eaters to one of fruit eaters. Yet amid this gloom and all this threatened danger we have advanced in the practise of spraying, so that brighter hopes are held for the future by those who note the essentials.

With me the work of spraying has been exceedingly profitable. There are phases of horticultural operation that seem to admit of indifference, but spraying never. It must be done at the proper time, with the proper material, and with full knowledge and regard for conditions. To be successful we must first know what to spray for, next what to spray with, how to mix the material, and the right time to make the application.

Spraying has not yet become general, for the reason that farmers have not adequate knowledge of insects, of their life history, of their ways of propagation and spread, or of their manner of obtaining their living whereby injury is done to trees and fruit. There are many species in collections, and about two hundred different kinds of insects that prey upon the apple alone.

Many fruit growers make no effort in spraying, and consequently suffer continual loss to their orchard interests. It is not essential to learn about all of these pests, but it is necessary to know a few of the general principles that govern insect life in its methods of propagation and in its feeding habits. This every fruit grower may learn from his state experiment station and farm journals, which are continually giving information in the most practical form. There is no longer valid reason or excuse for any farmer or fruit grower to be ignorant of the methods to be employed for the prevention of loss from insects.

### When to Spray

It is very important to start the spraying at the right time. No fixed rules can be given for this. When the aphids begin to appear, the trees need to be inspected closely to note when the insects begin their damaging work. Following a warm period in March, we have found the buds of apple trees covered with young aphids, that had come out before the leaves. It is also very important to spray these at this early time; otherwise they will injure and weaken the buds in their development, lessening the quantity and also injuring the quality of the fruit.

The tent caterpillar frequently hatches before the foliage comes out, when it is forced to live upon the buds. They are even more destructive than the aphids, both of which occasionally are preying at the same time upon the buds. The crop of fruit at times is nipped in the bud by these insects that come out in advance of the foliage.

Bordeaux is beneficial when applied upon swelling buds, and if sprayed at the same time with arsenate of lead will check the aphids some by contact, while it will quickly kill the young caterpillars. To obtain well-developed fruit with high color, the leaves of trees must be protected. There are many kinds of leaf-eating insects that so injure the foliage that there can be little or no perfect fruit obtained, as it is through the foliage that the trees and fruit are nourished and developed. By going through the apple orchard and looking at the apple trees that have not been sprayed, there will be found very few perfect leaves. Nearly every leaf will be more or less eaten, in many instances only the stems being left. The fruit will be small, with no color and of poor keeping quality. By spraying with Bordeaux, to which is added two pounds of arsenate of lead to each fifty gallons, as soon as the blossoms have fallen, again in ten days and a third time two weeks later, the codling moth, tent caterpillar and other leaf-eating insects will be destroyed, the foliage not only saved, but the fruit will be of much finer quality.

The spraying must be done with great thoroughness. This cannot be done on a large scale with small hand pumps. There are many good power sprayers made. The gas sprayer is giving good satisfaction, the power of which is always ready and easily applied, while there are no pumps to get out of order. A good mist thrown over every part of the tree is more effective than saturation. The hand pumps are handy for use about two-year-old trees and berry fields.

I am using a petroleum solution, scalecide, as an autumn and spring spray. This material was used the second week in November, when the foliage was partly off the trees. One gallon of scalecide is put into twenty-five gallons of water, when it is ready for immediate use. This solution has done most effective work in our orchards.

The salt, sulphur and lime mixture is a disagreeable material to apply, laborious and expensive to prepare and unless perfect in its combination is ineffective. I have seen orchards sprayed with the sulphur mixture, where not over twenty per cent of the scales were killed and none of the fruit was fit for sale. Those who have the best facilities for making the sulphur mixture say it is very hard to make the mixture twice alike.

### Scalecide an Efficient Remedy

We make two applications of scalecide—in the autumn and in the spring. The scale is less resistant at these times, and by so doing I expect to kill ninety to ninety-five per cent, which will prevent any perceptible injury to fruit the following season.

Pears and apples are attacked by the apple and pear scab, a fungus that spots and cracks the surface of the fruit. The foliage of the apple suffers from the same cause. Before we began regular spraying we had trees well loaded, but entirely without leaves early in the fall. The crop under such conditions is of no value to the grower. Since we have taken up regular spraying, covering several years, we have had regular crops of an exceedingly fine quality of apples.

For the last few years we have been reducing the strength of Bordeaux until at the next spraying this spring we will use the 4-4-50 solution; that is four pounds of bluestone, four pounds of lime and fifty gallons of water. We have little or no discoloration of the fruit, arising from the stronger solution of Bordeaux, which has done much damage to some growers during the past five years. We start to spray our orchards as soon as the trees are planted.

Young trees are very generally attacked by canker, which soon shows itself on the body in dark-colored patches, even at two years old, and not only is the foliage sprayed to prevent fungus and insect injury, but the bodies are as thoroughly sprayed to protect them from the attack of canker. In spraying older and bearing trees, the branches and bodies are as thoroughly covered with Bordeaux as the fruit and leaves.

Where there is a commercial orchard of any extent it is now necessary to have a force of men whose time is to be exclusively devoted to spraying for a period of nearly two months. If this is done it will give from seventy-five to eighty-five per cent of good marketable fruit. Before spraying, prune the trees, cut out the tops and hold them down to eighteen feet in height. A fruit tree will stand more pruning than most fruit growers imagine if done intelligently. Remove the brush before beginning to spray. I repeat, get ready for spraying, and do it right at the proper time. There is more money returned for perfect spraying for the money expended than by any other feature of horticultural work.

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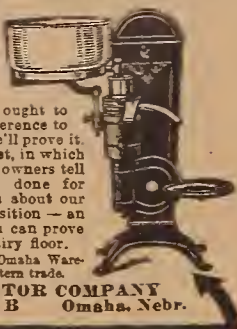
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## Live Stock and Dairy

### Cow Notes

In all of our dealings with the cow it is best to get her good will; rough, boisterous treatment will greatly reduce the flow of milk and shorten the period of milk giving.

The sums paid for qualities that are not at once visible to the eye are stigmatized as fancy prices by those who do not understand the value of an animal for breeding purposes.

Wheat bran and middlings are as good, if not better, taking all things into consideration, than any other foods. Gluten, oil meal and many of the other foods are good for milk, but are deficient in mineral matter, which the animals require. We are too apt to look for protein alone; but the cows should have mineral matter, too.

The poor care that the average cow receives is due, I believe, to a lack of appreciation on the part of cow keepers of her true worth and the effect that good care has upon her. The average cow is treated too much like a machine. She gets about the same treatment that the self-binder or the mowing machine receives, in many cases not being as fortunate.

W. H. U.

### Keeping Hogs Healthy

I RECEIVED an inquiry from a FARM AND FIRESIDE reader of Bloomdale, Ohio. He wants to know how to prevent hog cholera and other sickness in swine. He also says that he has not had much success with the preparations that are found on the market, and therefore thinks it advisable to use a preventive rather than try to cure. With him I surely agree, for it has been my experience that when hog cholera once got a start there was no stopping until almost the whole herd was lost.

When I first began the raising of swine, before I learned how to care for them I had several cases of cholera, and consequently lost almost my entire herd a few times, which was almost enough to discourage a young breeder. However, it appeared to me that the thing to do was to prevent sickness in my herd.

Nature has provided an abundance of food of different kinds, which will, when properly combined, form a most healthful food. Nature also provides an abundance of sunshine to destroy most all germs if properly exposed. From my years of experience I would say that care covers

the entire ground. Care covers food, water, sunshine and exercise. I find that when every detail in these four different branches are strictly attended to there is little need of sickness. Of course, I do not say, nor mean to be understood, that this will absolutely prevent any sickness at all. All animal life is subject to sickness, but with the proper care it can be reduced to the minimum.

The feeding of swine is a great question and can be mastered only by experience. Hogs, to be healthy, must have a variety of food—grains, roots and forage. The condition of the hog should govern the kind and quantity. Different conditions would suggest different methods, and therefore it is not safe to lay down any iron-bound rules.

The question of water is also a very great one, and one that, from my observation, is often neglected. Some think that any kind of a hole will do for hogs, and consequently they are left to drink from the hole that they wallow in. This, I think, is one of the main causes of sickness in hogs, the water becomes stagnant and foul and is full of disease germs, and the hog taking this foul water into its stomach is bound to sooner or later become diseased.

Another very important consideration is sunshine and exercise, and without both of these I have never been able to have success. I have too often seen hogs cramped into a little, dark, filthy pen for fattening. I find it most profitable to give my hogs good range at all times, whether feeding to fatten or not. It will sometimes happen that cholera will get into the whole neighborhood, and in such an event I would try to keep my herd as far from the adjoining neighbor as possible, and use an abundance of a good disinfectant about the grounds, and a little in the water; in fact, this will do no harm in health. But should cholera get started in my herd, the first thing I would do would be to kill and burn the sick ones, taking them away from the others for the operation. I have tried to cure a few cases, but always failed, and lost money by allowing them to stay on the farm.

I find it best to have several different fields for hogs, not keeping them in the same place very long. The land should also be cultivated, which acts as a germ destroyer. Everything that can be done to keep things in first-class order, letting nothing go undone, I find to be far better than any medicine that I have ever tried.

R. B. RUSHING.

### Feeding Sheep Grain in Winter

THE careful husbandman will see that his sheep get their full proportion of grain during the winter season, for there is nothing so miserably disgusting to the herdsman as to have a half-starved, poorly fed flock of sheep to turn out upon pasture in the spring time, or to clip the wool, a scanty growth, from the backs of a poorly fed flock of ewes. Then these ewes cannot be expected to bring out strong, sturdy lambs during the spring lambing period if they have been stinted in their grain supply during the winter. Some careless sheep owners, we scarce can call them shepherds, do not feed their ewes a mouthful of grain during the winter season, chiefly because they think they do not need it, and because they are not fixed with suitable racks or troughs in which they might feed.

It is most convenient for the majority of sheep owners who have not large barns in which to care for their sheep to attempt to feed them in troughs arranged about the feed lots; but this method has its disadvantages, for during a night of heavy storm the troughs will have become filled with sleet and snow.

A reversible feed trough that can be easily turned over, presenting a dry, clean trough, will greatly obviate this discomfort in feeding out of doors.

A rack of this nature is easily constructed. Take a board ten inches in width and any desired length, lay it flatwise upon the ground, and at each end, and in the middle if the board be more than eight feet in length, securely nail pieces of heavy barn lath three feet in length. Then mortise holes in the center of the board at the intersection of these lath, and place through these mortise places this same kind of barn lath three feet in length. Upon these last-placed lath nail upon each side of the broad board a strip of board five inches wide and as long as the broad board.

Nail all up securely, and fit at each end a piece of board ten inches square to close the ends of the troughs, and you have a reversible feed trough that can be turned about in any position, and will set upon a pair of legs, and may be reversed in any position to accommodate the needs of the flock in case of storms.

GEO. W. BROWN.

### Wintering the Fall Pigs

A YOUNG farmer writes me that he has a lot of young pigs on hand and would very much like to raise them. He says they are all right just now, but he fears that as soon as they are weaned they will become stunted and most of them die, like a lot a neighbor had last year. He has very good luck with spring pigs, but this is the first lot of late fall pigs he ever tried, and if he could succeed in raising them he would be more than pleased, because he is in debt.

As soon as the pigs are taken from the sows they should be put in a dry shed, with a small enclosed building attached. This building should be kept well bedded with straw, so the little fellows can make a nice bed and keep warm of cold nights and stormy days. Keep them warm and dry through the entire winter and early spring. For feed I would make a thin mush composed of corn meal (coarse) two parts, middlings two parts and wheat bran one part, mixed with skim milk. I would salt this a little twice a week, and if you have any waste vegetables, such as small potatoes, cabbage, beets, etc., you can chop up a small quantity three or four times a week and mix with this feed. Give them all they can eat of it. In extremely cold weather feed the mush a little warm. I would mix a feed before breakfast and give it to them immediately afterward. In very cold weather I would feed them three times a day, in mild weather twice. Also give them coal ashes and a little slack coal to pick over, and see that they have plenty of water. Treated and fed in this manner the little fellows should keep healthy, grow nicely and remain straight and smooth until grass comes. They get their chief sustenance from the middlings, corn meal and milk, and the bran keeps their bowels in good condition.

The reason we find so many humped-up, runty, unthrifty fall pigs is because they are fed principally on corn and are not given dry, warm sleeping quarters. Often they are allowed to sleep on a pile of manure, the worst place in the world for pigs, and are kept in a muddy yard, where they get covered with dirt and, often become lousy, and instead of growing as they should, they become stunted and never make good hogs.

FRED GRUNDY.

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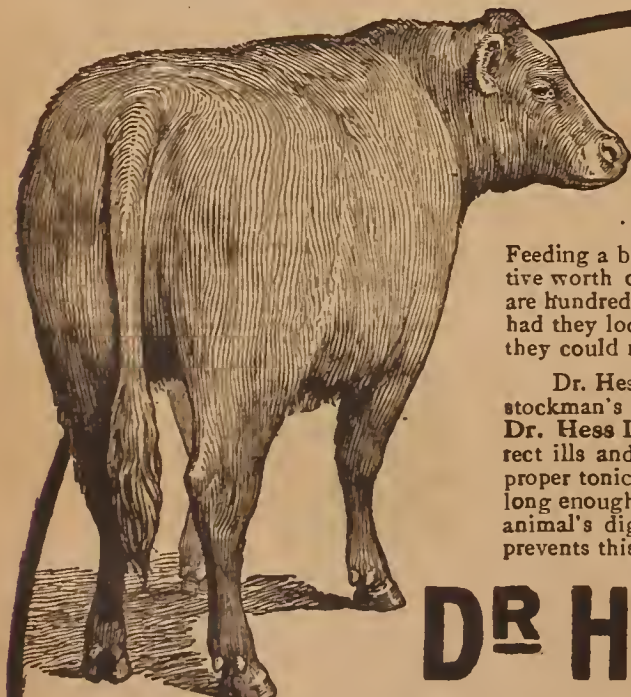
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# Live Stock and Dairy

## Dairygraphs

Beef and butter cannot be developed in the same cow. Either breed for one or the other, for there is no half-way road to success.

The separator is a machine which should receive careful treatment if it is to do its best work. Foundations should be solid, and the machine set perfectly level. All bearings should receive frequent flushings with kerosene. This will make the machine run easy and prolong its life. Keep the machine well oiled with the special oil sent out with the separator. Separators should be located in a clean, well-ventilated place, free from odors. It is not necessary to say that the separator should be taken apart and thoroughly cleaned and aired after each time it is used.

The proper way of washing milk utensils is something that is often neglected. All milk should be rinsed from the surface of the tin before it comes in contact with the boiling water, as the heat will cook the milk onto the surface, forming a coating very difficult to remove. If this coating is not removed it furnishes food and a place for bacterial growth. This is especially true in localities that are damp. After rinsing the vessels free from milk, they may be washed in hot water. There should be added to the water some good cleansing compound. Some of the so-called washing powders are not good, for a grease of some kind is used in their make-up. If a good powder cannot be obtained, ordinary commercial sal soda and a little borax can be used.

WM. H. UNDERWOOD.

## Alfalfa and Clover for the Feeder

AT THE last meeting of the Niagara County (New York) Farmers' Club Prof. G. F. Warren of Cornell University gave to an appreciative audience a talk on "Alfalfa and Clovers." He mentioned

its present high price I am still making it one of my chief concentrated food materials, both for horses and cattle, and also for poultry.

According to last census, the United States had the following acreage:

Alfalfa, two million acres, producing five million tons of hay.

Clover, four million acres, producing five million tons of hay.

Cultivated grasses, thirty-one million acres, producing thirty-five million tons of hay.

We grew about as much alfalfa hay as clover hay on half the area. The value of alfalfa, however, is most strikingly shown by a comparison of the digestible protein produced on one acre in these several hay crops. Alfalfa gives 609 pounds; clover 177 pounds; cultivated grasses (mostly timothy) 62 pounds an acre. Of the whole sum of digestible nutrients (protein, carbohydrates and fat), an acre in alfalfa produced 2,673 pounds; an acre in clover, 1,214 pounds; an acre of the other grasses 1,091 pounds. In short, alfalfa is always far in the lead.

Professor Warren figures that when using ordinary hay as coarse food, a cow will need in a day about eight pounds of grain, such as oats, bran, middlings, gluten meal, etc., at a cost of eleven to twelve and one half cents a day. But with alfalfa a combination can be made in which a much smaller amount of grain foods will answer every purpose, at a cost of from five to six cents a day.

With all these advantages of alfalfa, the wonder is that we do not grow more of it. On the right soil, even on clay soils if well drained and limed, it will grow almost anywhere, East and West. It likes a deep soil, and will send its roots down as deep as it finds favorable soil conditions, if this be twenty feet or more. Good corn land is usually good for alfalfa, and these two crops, corn and alfalfa, will produce more food to the acre than any other crop. But both want rich land. We should not think that alfalfa, being a legume and able to



First Prize Guernsey Bull, Wisconsin State Fair, 1908

that alfalfa is often spoken of as a new thing, while in fact it is the oldest cultivated forage crop in the world. So far as we know, it was the first hay crop and it has been grown as such for a hundred years.

Comparing alfalfa hay with wheat bran, we find it of almost exactly the same composition. Alfalfa hay has ninety-two per cent dry matter; 11 per cent protein and 42.3 carbohydrates and fat; wheat bran has 88 per cent, 12.2 and 45.3 respectively. But it is never safe to compare a grain feed with a coarse fodder on the basis of composition only. The coarser food is often harder to digest, and there is consequently some loss in nutritive value. It has been found that when wheat bran is worth twenty-four dollars a ton, alfalfa hay is worth seventeen dollars and sixty cents. Professor Warren found a farmer near Rochester selling alfalfa hay at sixteen dollars a ton, which is very near its true food value.

This statement of Professor Warren's throws a side light upon the food value of bran. Many farmers have a prejudice against wheat bran, claiming that it is not easily digestible, and not worth what we are asked to pay for it. Yet if it compares so well with alfalfa hay, which is admittedly one of the richest of all coarse fodders, and found most satisfactory in practical feeding, we may well allay our fears concerning the alleged indigestibility of wheat bran. Even at

get some nitrogen from the air, can grow in soil deficient in nitrogen. Even clover does best in rich soil. Legumes need so much nitrogen that they must have it in both ways.

No use, however, trying to grow alfalfa in acid soils. No other farm crop requires so much lime as does alfalfa. The goldenrod thrives in acid soils. With a little bit of lime in the soil, redtop will grow; with still more lime we can raise timothy; clover requires still more lime in the soil, and alfalfa the most lime of all. Lime applications, therefore, are often wonderfully effective. In a series of experiments made at Cornell University lime gave good results even when applications of fertilizers were found ineffective. Best results came from a combination of lime with farm manure, the former being applied at the rate of three fourths tons to the acre, the latter at the rate of ten tons to the acre. Agricultural lime or lump lime was used at Ithaca, costing there, in car lots, three dollars and forty cents a ton. Ground rock will give about the same service if twice as much is used as of burnt lime.

Altogether I believe that alfalfa is the one great crop for the stock raiser and dairyman, and that too much can hardly be said in its favor. More alfalfa will mean better returns from our farms.

T. GREINER.

Read the guarantee on the editorial page of this number.

AWAY IN THE LEAD  
FOR 1909

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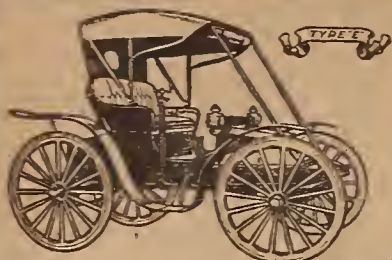
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## Poultry Raising

### Worms in Poultry

**P**OUTRY of all kinds are subject to worms, the usual symptoms being pale combs and wattles, and thin bodies.

To remedy, remove the suspicious birds and keep them shut up for thirty hours in a coop which has a floor made of slats, so that all droppings will fall through, out of the birds' reach. Give no food during this time, then mix half a teaspoonful of powdered areca nut with four tablespoonfuls of bread crumbs; moisten, and feed. The next day give half a teaspoonful of castor oil, and a cure should be effected. **W. F. P.**

### Lime is Harmful in Winter

**S**OME people scatter lime in their poultry house in winter to disinfect it. Of course this is done with good intentions, but it often does much harm.

It is not wise to use lime in the poultry house in the winter. It often causes roup and catarrh. The fumes from the lime irritate the mucous membrane of the nasal passage and make it very tender. They also cause the nasal fluid to flow extensively and make the eyes water. When the chickens are in this condition they contract colds very easily, which often terminate in roup, catarrh and other troubles.

**GREGOR H. GLITZKE.**

### Goose or Gander?

**S**OMETIMES it is difficult to distinguish a goose from a gander, especially when young. After they get older the resemblance is not so striking. At quite an early age, however, it will be noticed that the gander has a thicker head and neck than the goose. So, also, there is a difference in the sound of the voice—that of the female being hoarser and harsher than that of the male. This distinction in voice is one that should be studied in all birds whose feathers are much alike, as it is a pretty sure guide in determining sex. Still another distinguishing feature in geese is that in the female the abdomen is heavier and hangs closer to the ground. **E. L. V.**

### Bran and Barley Are Good Poultry Foods

**T**HE natural make-up of hen feed is a variety, a little of this and that, and a constant exercise in procuring. Corn and many other kinds of food are too heavy to feed alone; some are too light. With these heavy foods something must be added to make bulk. Wheat bran is the best thing I know of for this purpose. It is excellent to clear the passages and keep the fowls in health. Bran is so common, though, that it is hardly popular as a poultry food. Some who are keeping poultry with poor success overlook the value of bran as an egg food, and buy more expensive but less valuable food for this purpose. Bran is too light to feed alone, but in its place it is one, if not our most, valuable food for laying hens.

Feeding antidotes, powders and condiments to healthy hens with a view of forcing egg production is something that I never practise, either in summer or winter. A well housed and cared for hen that will not lay on a ration of grain, such as is ordinarily produced on the farm, should be disposed of. On about every farm there is plenty of feeds that will go to make a reasonably well-balanced ration. The fault lies in the owners not taking pains in mixing these different grains which he has so as to compose such a ration as the laying stock need to make eggs.

A good many seem afraid to feed barley to hens. Good, clean barley, with no beards in it, makes one of the best poultry feeds we have. Years ago, when living in Cayuga County, New York, where a large amount of it was grown, barley was one of our main poultry feeds. The writer has fed it as a grain food exclusively all winter, and with good results, too, but it gives better results when fed with other grain. Barley contains more protein than wheat, corn or oats, and less fat. This is the reason of

its being so valuable as an egg producer. Barley ground into a meal is excellent mixed with a mash—one part each of ground oats, corn and barley, with a little wheat bran or clover meal mixed in, or make one part boiled potatoes. There need be no fear in feeding barley if it is properly used and is clean, sound grain. Corn is one of our best poultry foods, too, but its use must not be abused. It should not be fed exclusively.

**V. M. COUCH.**

### Poultry Notes

Sell off all the old stagers. Not one out of a dozen of them is paying her way.

Fresh air in the houses is good. It makes the birds healthy, but it does make a difference how they get the air. Coming through open windows and cracks is the poorest way in the world.

The hen that is all the time working in the dust bath is very likely just about eaten up alive with insect pests of some kind. Get hold of her and see how that is. Help her to get rid of the enemies and she will do better for it.

What kind of hens are best? The ones you like best. What! love a hen? If you do not, better not try to have anything to do with them. You never will win. But find out whether you love a black hen or a buff hen or a white one best, and then act accordingly. Those are the ones you will make a success with, providing, of course, that you study your business. No man or woman who is not willing to study will ever succeed in anything.

The most sociable hen we ever had was a Buff Plymouth Rock. She liked to be where the rest of the folks were. The minute she heard us up in the morning running the corn cutter, she would creep out to pick up some of the kernels of corn that dropped from the knives. One morning we were there before daylight. It was comical to see that hen feeling her way through the dark to get in where we were at work. By the rays of the lantern she picked away at the corn, cawing away sociably all the time.

**E. L. VINCENT.**

### Interchangeable Perches

**O**NE of the hobbies of the successful poultry raiser must be to try to keep rid, or as nearly so as possible, of vermin in the poultry house, and especially of the pestiferous mite. It is well known that the process of this night invader of the poultry plant is to harbor upon the perches and come forth at night time to prey upon the fowls.

Therefore, if no fowls are allowed to perch in the poultry house elsewhere than upon the perches, these pests will soon have taken up their permanent quarters upon the perches, within cracks and crevices; thus the method of frequently oiling the perches has been instituted in order to rid them of mites. This is a good method and should be resorted to at least once each month the year round, for it will not only rid the house of mites, but will as well keep scaly leg and other pedal ailments from the fowls.

For a number of years we have employed two sets of perches in our large poultry house, using one set while the other has been well saturated with kerosene, and thrown out in the weather. Thus the mites have but little chance to gain a foothold upon a set of perches until they are thrown out of service and a clean set instituted.

We have found this the most practical method of keeping the fowls rid of this pest. Then see that all the fowls in the house go onto these perches, for we have discovered where careless methods have been practised, and the fowls perch upon edges of boards, in nest boxes and wherever they might get a foothold, that a fight must be waged in order to clear the premises.

**GEO. W. BROWN.**

### Poultry Pointers

The hens should be encouraged to lay by providing them with nice, clean, inviting nests in which it would be a pleasure for them to lay.

The egg-eating hen can often be cured by cutting the end of the beak off to the life, and then penning her up with plenty of glass eggs on which to practise.

The hens should have their heaviest feed at night. Then is when they should be satisfied. During the day they should always be hungry enough to keep busy.

**G. H. G.**

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# Poultry Raising

## The Best Poultry House

THE best poultry house is one that will give the best conditions for the care of poultry during the winter. There are several things that must be considered in any model poultry house. The first of these is light. There needs to be an abundance of light, for good health is not possible in a dark poultry house with just one little window to let in light perhaps from the north side. There needs to be windows on three sides of the house; if possible, on every side except the north. There should be a window in the east and west ends of the building and a big one or several small ones on the south side. As to whether there should be a big one or several small ones depends on the conditions to be met with in the poultry house.

Really the best poultry house is the one that is so built and so located that it can be kept dry throughout the entire winter. This matter of dryness is of such importance that it may well be doubted if good success is possible without it. The location of the house on land that is well drained is essential, and if there is not a natural location near the barns one can be made by piling coal ashes or cinders around the house to keep the level above the water line. The good poultry house will have inside of it all movable fixtures to facilitate the cleaning and to make it possible to sterilize the roosts, nests and other furniture.

WM. H. UNDERWOOD.

## Poultry an Addition to the Family Income

THE greater part of the people residing in suburban homes and country towns keep poultry and the number of eggs thus produced is enormous, but the haphazard methods of care make these flocks in the main, of little account to their owners, as the receipts from the individual flocks are small. It has been demonstrated that poultry can be made to pay, even in limited quarters and when

the time is a question that for ourselves we have not yet decided, but intend to give it a trial this winter. We know that roasting chickens can best be raised by hopper feeding, and we like the plan for free-range stock intended for breeders and layers, but we do not know that it is the best method for laying hens, as we want them to exercise. The plan we shall pursue is to feed grain in litter and keep the mash mixture, beef scrap and grit in a hopper. Whether the hens will fill up on the ground grain to the exclusion of scratching for the whole grain in the litter, we do not know; but in such a case we will close the hopper until the middle of the afternoon, which we think will bring them to their senses. If hopper feeding is the success for laying hens that its advocates claim, then the work of caring for the fowls can be materially decreased, so that a person can easily care for a large flock.

Some think that because they rent property they cannot go into poultry culture to any extent or with any degree of safety; but this is not the case. A poultry plant can be so constructed as to be readily moved. Of course, it is not a desirable job to move a poultry plant of large capacity, but it can be done with little more labor than moving the household effects. I know of a man who farms for poultry on a rented farm. He had a small capital, but knew if he invested in land he could not have suitable buildings or money to swing on, so he constructed a number of comfortable hen houses, colony houses and brooders, rented a farm and went to work. He is now on a fifty-acre farm, within easy driving distance of a city of fifty thousand, has a good house, barn and orchard, and pays an annual rental of one hundred dollars. He keeps a horse and cows, lets some land on the halves for crops of corn, buckwheat, etc., cuts hay enough for his stock, raises a crop of potatoes and a garden, and devotes the rest of the farm to the hens. These are kept in houses ten by twelve feet, of which he has a dozen or more, and keeps about five hundred hens. The



The Barn-Yard Flock

it is necessary to purchase all the feed. With care and judgment a small poultry plant can be made the source of considerable income to any family having a small plot of ground to devote to the fowls, and with no more work than is usually given to the household chores. An hour night and morning will care for a flock of hens that will return a profit of several dollars in a year.

The methods of caring for poultry and rearing chicks have become so simplified with advanced knowledge that it is no longer the work it used to be. With the best grades of commercial chick foods, chicks that are properly hatched from strong parent stock can be raised with very little loss. It takes but a short time to attend to three hundred or five hundred chicks in brooders and colony houses when the work is systematically done.

The feeding of hens is also much simplified, especially when a dry ration is employed. The feeding of the dry mash from self-feeding hoppers is becoming quite popular with some, who claim they get just as good results as they did when they went to the trouble of moistening it. This we have always contended, that moisture does not increase the value of the mash, but unless the hopper is rightly constructed there will be considerable waste.

Whether it is advantageous to keep the mash mixture before the fowls all

houses he built himself and can be taken down and set up readily, the largest piece being four and one half by twelve feet, so that two men can easily handle it, and four of these houses will go on a lumber wagon. The houses are placed at convenient distances over the farm and the birds allowed free range. No hatching is done, the chicks being purchased direct from the incubator, all males sold as soon as they reach two pounds weight, and as the pullets mature the old hens are sold off and their place given to the pullets. The entire poultry plant did not cost over two hundred and fifty dollars, and with it the man cleared over one thousand dollars last year.

Even with a small capital there are plenty of chances to get into the poultry business, but many who wish to make it a paying side issue hesitate about putting any money in buildings and other necessary appliances. They buy a few common eggs, set them under a hen and expect from this simple start and the investment of half a dollar to make a fortune. Or perhaps they buy some farmer's late pullets or old hens at market price, if they cannot jew him down lower, and when winter comes they wonder why they don't lay. Such people contend that there is no money in hens. If one enters the poultry business, he or she should do so with the determination to stick to it and make it pay.

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# Practical Farm Notes

## The Farmer's Study Time

Now that the winter season is here, and there isn't much general farm work that can be done, don't let the chores take up all your time. Stock necessarily requires more attention in winter than in summer, but the whole day need not be spent around the barns.

Winter should be the farmer's rest period to a certain extent with opportunities for reading and study. As cheap as good books and papers now are, especially those pertaining to the farmer and his work, dreary winter days should not pass unprofitably spent.

Give the feeding and chores the attention they require, but do not let them take up all your time. W. F. P.

## Locust for Posts

I HAVE had some experience with locust posts, and can say truthfully that this kind of timber makes as durable a post as any timber at the farmer's command.

When I came on the farm I now own I cut a small locust (six inches in diameter), which had died from some cause, and the bark had dropped off. From this I cut two posts, which lasted thirty years; at the expiration of this time the larger one was broken off by a traction engine running against it, and there still remained a portion of solid wood at the point where it broke, just below the surface of the ground.

I am using posts of trees of my own planting, and find them better than mulberry and far superior to the best oak. Twenty-five years ago I planted locust in my woods where other timber was thin. From these I have been cutting posts for several years. From the seed of these young trees are springing up every season, and the prospect is good for a large crop of post timber a few years hence.

A row of this kind of trees was planted more than fifty years ago on the roadside along a field I have been cultivating for over forty years, alternating with grass and grain, and they have never given me any trouble by sprouting in the ground devoted to the plow, although the old trees were cut and young ones took their places along the fence.

JOHN L. WINCE.

## Principles of Farm Practise

With Regard to Grasses

REFERENCE has often been made to weeds on grass land, but among the worst of weeds are some of the grasses themselves. A field may be a poor pasture without being obviously weedy. Another may show by ungrazed patches that the grass is distasteful to the stock. Both these fields in a sense may be said to be full of weeds.

Certain grasses, like certain weeds, give a fair indication of the quality and condition of the land. Some prevail only on poor land; others get a footing when land is poor, owing to the weakness or the dying out of the better grasses, and spread when the land has a more generous course of treatment. There are other grasses that are special either to excessively wet or excessively dry land. Some grasses when in strong growth may have an unpalatable flavor, which is removed by exposure to frost, so that the patchy fields of summer are eaten clean in winter or, spring. These grasses may be useful enough if they are naturally nutritious. An example of this is seen in cocks'foot grass, which grows so freely in shady places.

All this shows that it is desirable for a farmer to make himself acquainted with the characteristics of good and bad grasses. In sowing down a field to grass, with the object of leaving it so for a number of years, a farmer will find it well worth his trouble to examine carefully into the seeding.

The selection of proper kinds of grasses will make all the difference between success and failure.

The longer a field is intended to remain in grass, the greater should be the number of grasses entering into the seed mixture. The best pasture is that which affords a full bite of nutritious grass over the longest time. This implies a mixture of grasses, for some start growing early in the season and drop off at a time when others would be in full growth. The best meadow is that which is all equally fit for cutting at one time and which gives a good after grass. As grasses vary so much in their season of maturing, a mixture of many grasses is undesirable in a meadow.

When a farm is carried on under a

rotation of crops, allowing only one year's grass at a time, the bulk of that grass will be Italian rye grass, that being the kind that produces the heaviest growth at the earliest age. If the grass is to be sown with clover, the broad-leaved red clover is the one to select, for the same reason.

When the time is extended to two or three years the Italian rye grass and the red clover are reduced, as both of these plants are biennials and one or two of the more permanent grasses are introduced. These must be of the class that come quickly to full growth, such as perennial rye grass, timothy, and cocks'foot of the grasses and cow grass and alsike of the clovers. If the field is to remain under grass for not less than five or six years the proportion of the biennials is still further reduced, and some of the other valuable permanent grasses substituted. Some of these take as long as three years to arrive at their full strength, so that their seed would be practically wasted if sown to stand a shorter period.

In deciding on the variety of grass to sow, the nature of the land must be taken into consideration. Grass is usually found to be most productive and most nutritious on strong land. Where the climate is moist, good grass will grow on the lighter soils, but in a dry district the light soils are more suitable for tillage.

The grasses which do best on heavy land are Italian and perennial rye grass, rough cocks'foot, timothy (otherwise called meadow cat'stail), meadow fox-tail, meadow fescue and rough-stalked meadow grass. Those that succeed on lighter land are hard fescue, sheep's fescue, crested dog'stail, evergreen meadow grass, smooth-stalked meadow grass, yellow oat grass and sweet vernal grass. Some of these will succeed either on heavy or light land. These are rough cocks'foot, perennial rye grass, hard fescue and sweet vernal grass. Of the other grasses those special to heavy land would be starved on light land, while those special to light land would be choked on heavy land.

Many graziers prefer to see cocks'foot on light land, as its growth is apt to be coarse on heavy land, and on such land cattle do not like it until after it has been mellowed by a few frosts. A few grasses are useful on swampy places. These include florin (white bent), water meadow grass and floating sweet grass.

All the preceding are good feeding grasses. Among the inferior grasses or weeds the most prevalent is Yorkshire fog, a woolly grass that prevails on all classes of land, from good to bad. This grass ripens an immense quantity of seed, as stock do not eat it except of necessity, and it spreads rapidly. As regards the feeding value of grasses, a safe general rule to follow is that all the woolly grasses are inferior, and may be regarded as weeds. Another weed grass prevalent in poor old pastures is tufted hair grass, a fine-leaved, dark-green grass which grows in clumps and overcomes the weaker grasses. The various sedges are not true grasses, and have no value in a pasture. Some of them indicate wet land, while others show poverty of land.

Bearing these facts in mind, the farmer will see that a proper selection of grass seed is important, and that it is equally important that the ground intended for grass seed should be free from weeds, which might overcome the seeds sown. Good quality of any seed implies that it is true to kind, free from weeds and other mixture, and of standard germinating power. Freedom from weeds is of the greatest importance, and on this account it is the practise in the seed trade to screen grass seeds at least twice. Many farmers overlook this, and consider that they save money by adding the sweepings of the hay loft to purchased seed. This is the greatest mistake, for an addition of this sort will bring in a lot of weeds and quite neutralize the effect of the screening.

W. R. GILBERT.

## Japanese or Barn-Yard Millet

A VIRGINIA reader says he had been induced by the flaming advertisements to plant the "Billion-Dollar" grass, and it amounted to nothing. Had he known it to be millet he would not have attempted to grow it, being well aware that millet needs rich soil. My own Japanese millet on fairly strong soil has given a big lot of stuff, rather coarse, but cattle eat it readily. In order to get a finer growth I think we should use more seed than seedsmen generally recommend. Altogether I feel that I must give it another trial—next year.

T. GREINER.

## Handling the Manure

THE chief source from which valuable plant food may be supplied is from the manure made upon the farm, and how to care for and handle it to receive the greatest possible returns in economy of labor and from the elements of plant life in the manure is a matter that should interest a larger number of farmers than it does.

The old method of piling manure in the field is still practised to quite an extent. When manure is drawn to the field it should be spread thin and even. As a rule it is applied too thick, and often in bunches and uneven. It is better to go over the farm once in four years with a light, even dressing of manure than to apply it heavily and get over the ground only at long intervals. The old idea that if too much manure is applied for the growing crop it will keep for the crop to follow is somewhat of a fallacy. This kind of reasoning results in the loss of much of the very best kind of plant food.

Some farmers make a great mistake in piling the manure in large heaps outside the barn door, and allowing it to remain there for weeks, and perhaps months, before spreading it on the ground.

When the manure is thus treated it loses much of its valuable fertilizing qualities, and for this reason it is of vital importance that the manure be hauled out and spread on the field just as soon after it is made as possible, while it contains a high percentage of soil fertility.

I make it a practise to haul the manure out and spread it on the field as soon as it is made, thus keeping the stables and yards constantly cleaned, and by the immediate application of the manure I get the most out of it as a soil fertilizer. Manure always goes out the best and with less labor if removed immediately after it is made, and no other handling of it is necessary if this practise is kept up.

I consider good stable and barn-yard manure to be worth at least two dollars and fifty cents a ton, and I can hardly understand why it is that some farmers regard it as a nuisance instead of looking upon it as a means of restoring fertility to their soil. Nothing can be of more importance to any farmer than the fertility of his soil, for it is the bank from which large or small crops are drawn, and like any other bank account, drafts are honored in proportion as deposits are made.

Manure cannot be applied in just the right quantities with the fork, and it is always left in a coarse condition. There is no way in which it can be so well applied and so cheaply handled as by the use of the manure spreader.

I regard the manure spreader as an economical necessity on any well-managed farm. By its use the manure can be hauled out and spread on the field each day with but little more labor than is required to throw it in a pile outside the barn door. In applying manure with the spreader it is put on uniformly, and all parts of the field are equally benefited. When the manure is dumped in piles it frequently happens that the work of spreading is postponed for some time, and the result is that much of the fertilizing value of the manure leaches out or is lost through fermentation. The manure spreader not only saves the plant-food elements of the manure, but also saves time and labor, as the work is all done at one time.

When I first began the use of a spreader I was very much surprised to find that in spreading as heavily as desired I was making the manure go about twice as far as when spread by hand. I tested this matter thoroughly, spreading a load by hand as thinly and evenly as it could possibly be done, and then using the spreader in comparison. The result was that five big loads could easily be spread with the spreader while two were being unloaded by hand, and in quality of work there was no comparison.

Where there is plenty of stable and barn-yard manure produced, and it is applied with a spreader, the increased results obtained will frequently pay for the machine in one year. W. HANSON.

Every farmer's family should have some good reading matter, some good games and some good music for the long winter evenings. A few dollars spent for these things will prove to be one of the best investments of the entire year. Look over the advertising columns, select what you want, and write to the advertiser.



# Farm Notes

## Some Cool Queries

What are you expecting from those half-starved hens?

How much machinery do you wear out? How much do you rust out?

Have you provided separate quarters for that young stock? They should be warm, too. It pays!

Is there any profit in allowing those hogs to pile up in cold quarters, squealing and fighting all night long?

Are you going to allow the mice and poultry to run to that seed corn and destroy it, then pay a high price for more next spring?

How long would the rheumatism be in getting away with you if your bed was as damp as the one your hogs sleep in? More dry bedding!

Do you dodge out these cold mornings just long enough to throw a little feed to your stock, or do you look around to see how you can add more to their comfort and your profit?

In short, are you just allowing affairs to bump along "any old way?" Remember, this is not "the good old summer time." Your buildings of all kinds should be made more comfortable. Your stock and poultry should receive more attention than at any other time during the whole year. It doesn't take half a scholar to figure out that a little extra feed and more of a variety will keep your stock going, help them to resist the severe weather and repay you many fold, to say nothing of the comfort it affords the dumb creatures. It's for you to decide whether you will go on the "hit or miss" plan. If you do, your profits will come in the same way, and next spring will find you with a lot of rusty, damaged machinery on hand, and a big supply of half-starved, stunted stock that never will be just what they would have been if you had seen to their comfort and fed them properly through the winter. Well?

M. ALBERTUS COVERDELL.

## Saving the Farm Ship

You do not need to chop a hole in the bottom of a great ship to make it sink. A little bit of a thing no bigger than a knitting needle will do it just as surely, give it time enough. It will take a little longer for the worm to do it than it would a stout man with a sharp ax, but the result will be the same. Down will go the ship, with all its pride and beauty!

There are some enemies working at the farm ship, too. They have scuttled many such a craft, and unless our eyes deceive us, many more are on the way. I am naturally an optimist. That is, I like to look on the bright side of things, and I would rather speak about all the good things I know of than to say one word which would discourage anybody. And now it is not my plan to sit down and point out what a poor, miserable lot of farmers there are in this country. It is easy to do that. Any man can point out leaks; but give us the man who can stop them and save the good old ship!

Let me suggest some of the corks we may drive into the holes which are being made in the sides of our dear old ship of the farm. What if I begin, as Adam did that time when he was in a bad scrape and did not know how to get out except to lay it to his wife? I am going to make this statement, and I believe it is absolutely true:

**The Wife is More Than Half the Winner of Success on the Farm**

I mean by that that if a man has a good wife he is pretty sure to come out all right. Some pretty poor sticks do fine work with a farm if they know enough to let their wives manage things. Not all of us are smart enough to do that. We men folks like to think we are so wonderfully smart! Take advice of a woman? Not much! We are the boss in this roost, and let no one dare to say we are only big chumps! If there is anything we are on hand to defend with tooth and nail it is our dignity as farmers. We are running this ship, and we are doing it all right, too!

But give me the man who listens to his wife and I will show you a man who is on the high road to success. She can do more than manage the household end of the contract; she is able to think and plan for the out-of-door work, too, especially if she has been brought up on the farm. So I place the wife high as a factor of farm success. And how I do wish I might whisper in the ear of every

young man who is looking about for a life partner: Be careful, oh, so careful! Whom you choose in this time of crisis! You may spoil your life or make it truly great and grand just by the wife you take to your heart.

And having found one who is truly worthy to be a farmer's wife, see to it that she is the wife of a "good" farmer.

## Economy in All Things

And then, look out for the wastes which may so easily come to the farm. They bore into the ship's bottom so fast! There are the vegetables which rot on your hands. The fruit which goes to waste, but which might be sold and saved. There is the land which produces little or nothing year after year. What an immense sight of this there is all over the country! Why, if we were rid of the land from which we never take in one single dollar, we could get along with half or one quarter of the acreage we now have. There is one man who never stops to ask how much you get out of your farm in the course of the year; he does not care a cent about that; all he thinks about and the only question he asks is, "How big a farm have you here?" Down go the figures, and you pay the tax, irrespective of everything else. Never will we be truly successful till we learn to make every foot of our ground bring us in something right along.

But poor buildings are a handicap, too. It takes so much strength to do work, in unhandy barns—strength we cannot well spare. This helps to keep us thin in flesh and weak in body. We need to learn to economize in strength. It is harder to do this than it is to save money, but it pays tenfold better. Give me the strength and the health and you may have the money.

Poor cows have sunk many a farm ship. That has been said so many times, no doubt many have become sick and tired of it; and yet why do we not act upon it? Why should we read and listen and still go right on year after year in the same old rut, milking cows that never did pay their way and never will as long as the world stands? If words mean anything, they mean that we ought to turn off the cows that are stealing our time, our strength and our feed and giving us little or nothing back. Shall we not begin now to work for better cows? If we did that it would not be long before life would take on a new phase to most of us.

## The Future Education

Still another thing ought to be spoken of. That is the farm boys and girls. It is too bad that there is not some better way of teaching our young folks what real farming is. There is a lot in the papers these days about helping the farmer to do better. Some of this is all right, and some of it quite without sense. The farmers of this country never will consent to having the government hold them up by the seat of the pants. They don't think much of that sort of thing. They are too independent to have anybody think that they are not able to go it alone. And if there is anything I do hope and pray for, it is that the time never will come when the farmers will lean back on Uncle Sam and let him carry them along. Really, that is the one thing I am afraid of in the present investigation, or whatever you may call it, that is going on from Washington—that it will put the thought into the minds of some of our farmers that we ought somehow to be helped by the national government. If the President or his helpers can tell us how we may, with our own strong right arms, do better work and make our farms grow better crops or better men and women, all right. But there let them stop.

Some day the time will come when our schools will teach the young folks to do things that they will want to know when they get to be farmers themselves. I want to live to see that day. Now we are all the time educating them away from the farms and toward the city. Half the books teach has little practical value in any department of life, and the half which might be helpful is made neutral by the way the teachers do their work.

One thing more. Why should we make money the supreme thought? Would it not be a good plan if we talked more about the manly side of a farm life and less, far less, of the money-making side? Life is so much more than a few dollars laid up in the bank! Thousands of farms would do greater and grander work if the men on them thought of money only as a help to a purer, truer, stronger manhood. For this let us plead with all our might!

E. L. VINCENT.

## Low Fares to the Cheap Lands of the Southwest

January 19th  
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Make your plans to go on one of these days—take advantage of the low fares offered by the Rock Island-Frisco-C. & E. I. Lines, and see for yourself the opportunities that are open to you in the Southwest. The trip will not cost you much. These special low-fare tickets over the Rock Island-Frisco-C. & E. I. Lines will permit you to go one way and return another, without extra cost. As the Rock Island-Frisco Lines have over 10,000 miles of railway through the best sections of the Southwest, you will see more of the Southwest than you could in any other way, and will be better able to decide where you want to locate.

Ask the ticket agent in your home town to sell you a ticket over the Rock Island-Frisco-C. & E. I. Lines, either Chicago, St. Louis, Kansas City, St. Joseph, Memphis or according to your location.

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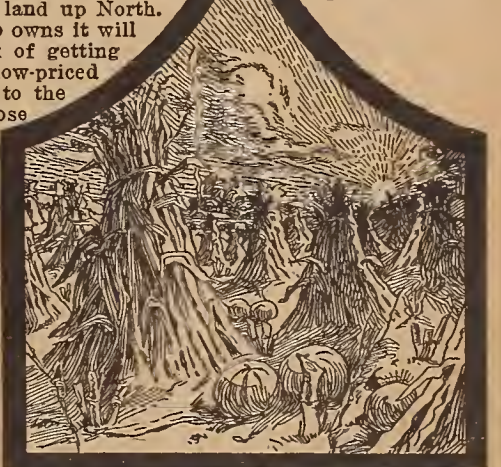
There are the biggest kinds of opportunities to get ahead in the Southwest—all that is necessary is to take advantage of them. Land in the Southwest is selling today for \$5 to \$25 an acre, just as good land as the \$25 to \$100 land up North. It will grow bigger crops and the man who owns it will have bigger profits left each year. Think of getting 30 bushels of wheat to the acre off such low-priced land. Corn will produce 40 to 50 bushels to the acre and oats 60 to 80 bushels. How do those crops stack up with the crops on your farm? The man who owns 80 acres in the North can get 320 acres in the Southwest for the same investment, and the land will be better, for it is new land and hasn't had years of crops to sap its fertility.

When the Southwest becomes a little more densely populated you won't be able to buy this land so cheap. The time to get a good, big farm is now while the land is cheap. Don't wait until it is too late.

Let me send you some interesting books about the Southwest. They will inform you of opportunities waiting for you there, and will open your eyes to new possibilities. Write for free copies today.

JOHN SEBASTIAN, Pass. Traffic Mgr., 1853 LaSalle Station, Chicago, 1853 Frisco Bldg., St. Louis

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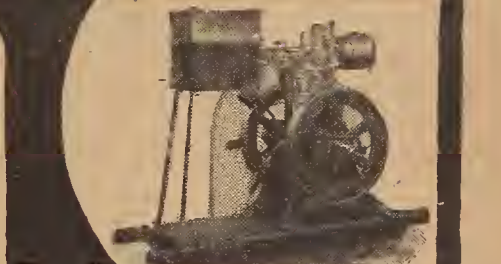
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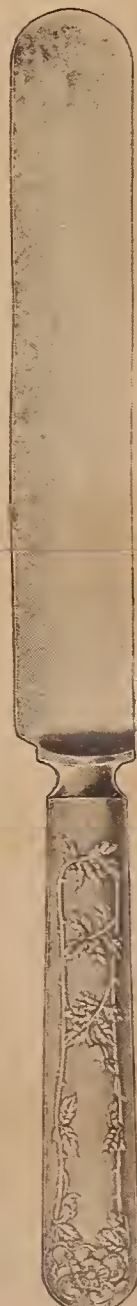
Description: This watch is made in exactly the same way as the men's watch, except that the parts are smaller. The watch is stem wind and stem set, and can be furnished with either Arabic or Roman dial, as preferred. We buy this as we buy all of our other articles, at the lowest wholesale rates, so that we can offer them to our readers for the smallest possible number of subscriptions. This ladies' watch can be furnished only in the nickel finish. It is sent postpaid for subscriptions to FARM AND FIRESIDE amounting to only \$3.75.



WATCH No. 1591



TEASPOONS No. 36



KNIVES No. 121

Send All Orders to The Million Club, John L. Thompson, Secretary, Farm and Fireside, Springfield, Ohio



# Every Subscription Counts Toward Any of These Rewards

But your own subscription alone will not count. You must send at least one other with it, or two subscriptions counting your own. Here is a great opportunity for you to save money in your spare hours or evenings. As a special concession to help you get a good start, you may take subscriptions at the following prices for a few weeks more only: One year, 25 cents; two years, 50 cents; five years, \$1.00.



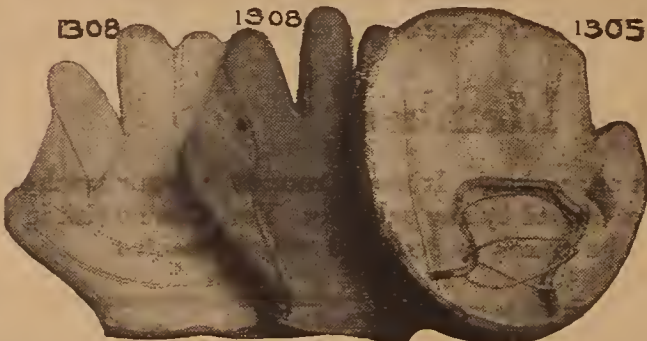
**Men's Catcher's Mask (1299)**  
Made of strong, heavy wire, padded with heavy leather. Thoroughly up to date, latest design, greatest strength and durability. Full size. Sent postpaid for subscriptions to FARM AND FIRESIDE amounting to only \$2.50.

## Men's Catcher's Mitt (1305)

Best quality leather, large size, and the new 1909 design. Has deep pocket. Made by the best manufacturers of baseball goods in this country. Will last for many years. Sent postpaid for subscriptions to FARM AND FIRESIDE amounting to only \$2.50.

## Men's Infielder's and Fielder's Glove (1308)

Best workmanship and quality, web thumb, deep pocket and thoroughly well padded. Made of good strong leather. A top-notch article in every respect. Sent postpaid for subscriptions to FARM AND FIRESIDE amounting to only \$2.75.



## Men's Professional Baseball (1296)

A durable, well-made baseball that should stand the hardest kind of usage and outlast a full game. Sent postpaid for subscriptions to FARM AND FIRESIDE amounting to only \$1.00.

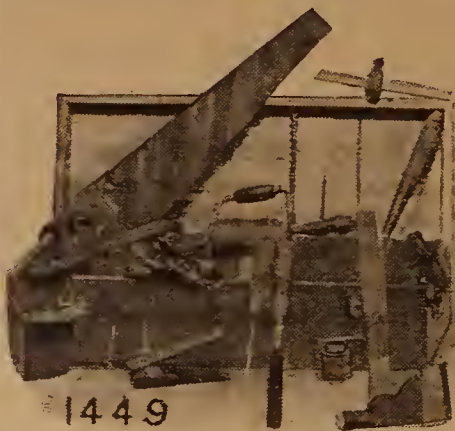
## Boys' Baseball (1295)

This is an excellent, large, durable ball for boys. Almost men's size. Sent postpaid for subscriptions to FARM AND FIRESIDE amounting to only 75c.



1296

1295



## Twelve-Piece Tool Set

These tools are not toys, but good, reliable articles that you can use for a long time, and that will give good satisfaction. Among the tools included are a hammer, saw, auger, chisel, screw driver, rule, etc.

This handsome set of twelve tools will be sent complete for subscriptions to FARM AND FIRESIDE amounting to only \$6.00.

The set is sent by express or freight, whichever is the cheaper, and the charges are to be paid by the receiver.



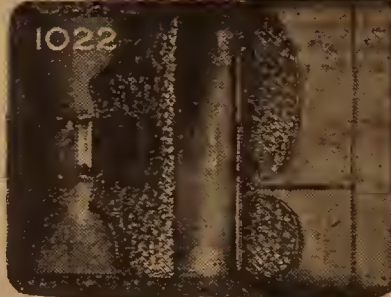
## Men's Seal-Grain Card Case and Pocketbook (1008)

Made of the finest black seal-grain leather and lined throughout with leather of good quality. A handsome, durable case that will always look well, wear well and give excellent satisfaction. Retail for \$2.00. This fine card case and pocketbook will be sent postpaid for subscriptions to FARM AND FIRESIDE amounting to only \$2.00.

## Hand-Forged Steel Ice Skates



All sizes. Best quality steel, highly tempered and forged by hand. Adjustable clamp. Clean, hard edge. These skates are sure to delight any girl or boy who is lucky enough to get them. Made for either boys or girls. (Be sure to state which kind you want.) Sent by express, receiver to pay charges, for subscriptions for FARM AND FIRESIDE amounting to only \$2.50.



## Ladies' Seal-Grain Pocketbook (1022)

Handsome, durable. Made of beautiful seal-grain leather and lined with the finest smooth black leather. Has a place for calling cards, money and several other pockets also. Sent postpaid for subscriptions to FARM AND FIRESIDE amounting to only \$3.50.

## Ladies' Hand Bag

This is one of the neatest and finest hand bags on the market. Made of the best black seal-grain leather with strap handles. There is no richer looking or more durable leather procurable for pocketbooks and hand bags than this seal-grain stock. Sent postpaid for subscriptions to FARM AND FIRESIDE amounting to only \$2.00.



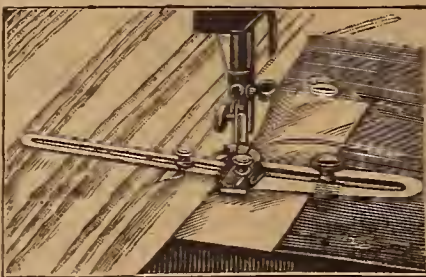
## High-Grade Food Chopper (1450)

This is the finest food chopper on the market. Has four different-sized cutters and is easy to turn. This food chopper is hinged so that it can be opened and the inside readily cleaned. Chops fish, vegetables, fruits, nuts, spices, coffee, cocoanuts, horse radish, etc. It will chop one pound of raw or cooked meat per minute. Has steel cutters, coarse, medium and fine, and nut butter cutters. This is one of the most useful and labor-saving machines that any household could have.



This excellent food chopper sent for subscriptions to FARM AND FIRESIDE amounting to only \$3.50, express charges to be paid by the receiver.

## Magic Tucker (706)



This is the best little tucker on the market. It retails all over the country for one dollar. Makes any tuck desired, from the smallest pin tuck to the largest, and never pulls, tears or injures the goods in any way. Tucks silks, flannels, linens, or any other goods of any weight whatsoever. Any woman who has a sewing machine and does not own one of these magic tuckers misses a great labor-saving convenience. This excellent tucker will be sent postpaid for subscriptions to FARM AND FIRESIDE amounting to only \$1.00.



## Sterling Silver Thimble and Case

Made of heavy sterling silver and is really beautiful. Will last for years and give the best satisfaction. This fine sterling silver thimble is sent complete with its handsome case postpaid for subscriptions to FARM AND FIRESIDE amounting to only \$1.25.

## Handy Tool Holder With Eleven Tools

This is one of the handiest and most useful articles ever invented. The tools are made of the finest steel and all are kept within the handle. Each tool fits into the clasp of the tool holder. The end of the handle screws off and on, so that the tools may be easily put in or taken out. One of these handy tool holders is a mighty useful article to have around the house.

Among the tools are 2 saws, 2 gimlets, 2 awls, 2 chisels, 2 screw drivers and 1 punch.

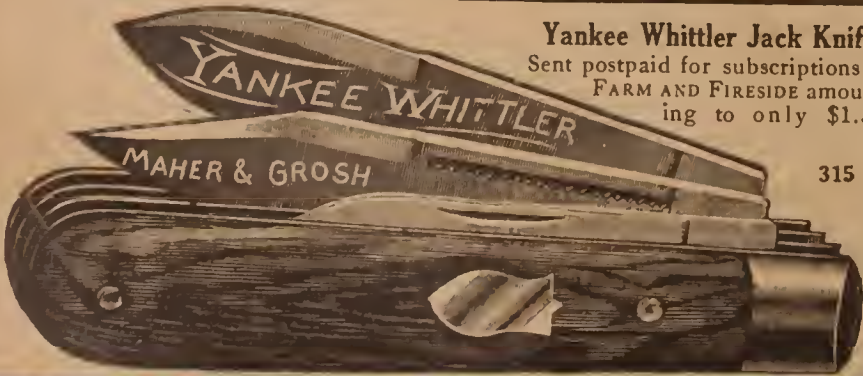
This handy tool holder complete with eleven tools will be sent postpaid for subscriptions to FARM AND FIRESIDE amounting to only \$1.50.



704

## Yankee Whittler Jack Knife

Sent postpaid for subscriptions to FARM AND FIRESIDE amounting to only \$1.50.

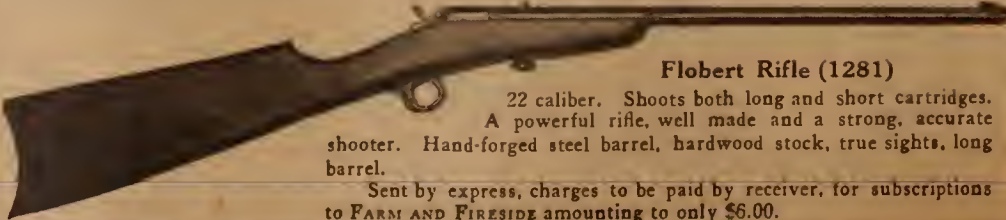


315



## 42-PIECE GOLD MONOGRAM DINNER SET (414)

Every piece of this beautiful 42-piece dinner set is beautifully decorated and will have your monogram in handsome gold letters in the center. It would be hard to find a prettier set than this will make when it is on your dinner table. The richness of the gold monogram and the beauty of the decorations make it an unusually attractive set. There are six dinner plates, six supper plates, one platter, two vegetable dishes, six cups and saucers, six butter dishes, six sauce dishes, extra bowls and butter plate. The whole set is made of the finest semiporcelain and the decorations are baked in the enamel. The set is sent complete by freight, receiver to pay charges, for subscriptions to FARM AND FIRESIDE amounting to only \$6.00.



## Flobert Rifle (1281)

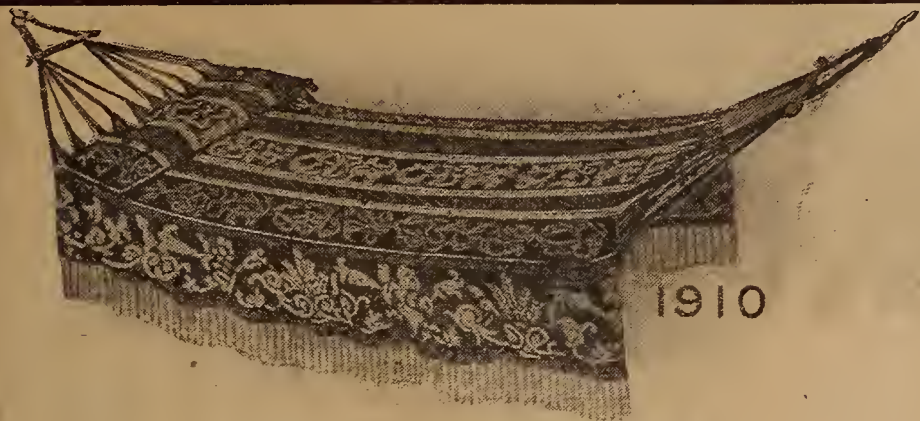
22 caliber. Shoots both long and short cartridges. A powerful rifle, well made and a strong, accurate shooter. Hand-forged steel barrel, hardwood stock, true sights, long barrel.

Sent by express, charges to be paid by receiver, for subscriptions to FARM AND FIRESIDE amounting to only \$6.00.



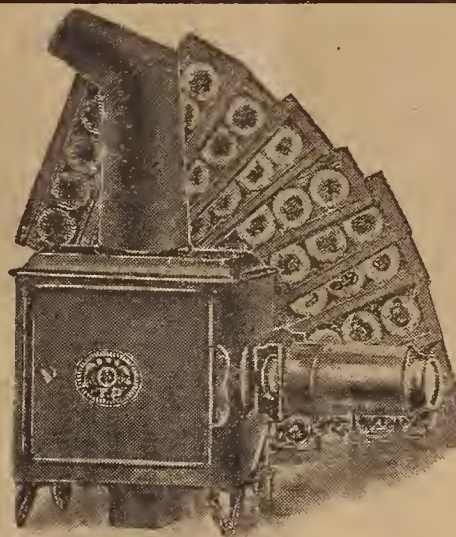
# Every Article is Guaranteed Exactly as Represented

Our thirty-one years of business integrity and our hundreds of thousands of dollars capital stand behind our guarantee. We will make good any article that is in any way unsatisfactory. You don't take any risk working for Farm and Fireside. Start right in to-day to get some of these attractive articles for your home or yourself. As a special concession to help you get a good start, you may take subscriptions at the following prices for a few weeks more only: One year, 25 cents; two years, 50 cents; five years, \$1.00. At least two subscriptions—one of which may be your own—must be sent to count toward these rewards.



## A Handsome Hammock (1910)

This hammock we can furnish in assorted colors and is made of the best quality material. It is full size and will give first-rate satisfaction. There is nothing that will give you more pleasure throughout the spring and summer on your porch or in your yard than a pretty, comfortable hammock. This is just the one you want, and it will wear well, too. It will be sent by express, the receiver to pay charges, for subscriptions to FARM AND FIRESIDE amounting to only \$5.00.



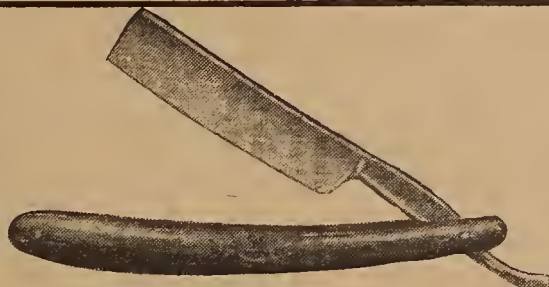
## Improved Magic Lantern

This is one of the newest and most improved Magic Lanterns on the market. It is made in the latest square shape and is sent complete with ten slides. Each slide has at least four pictures, so you get forty pictures free with the Lantern. It has two lenses with focusing slide which may be adjusted at the will of the operator. A good, reliable Magic Lantern of this kind will give almost any home a great deal of pleasure. Sent by express, the receiver to pay charges, for subscriptions to FARM AND FIRESIDE amounting to only \$2.50.



## Premette Folding Camera (1348)

Here is a really excellent instrument, of the very highest grade. It is a perfect camera in every respect and folds up so that it can be conveniently carried in the pocket. Takes pictures  $2\frac{1}{4}$  by  $3\frac{1}{4}$  inches. Covered with black leather. This camera usually costs from ten to twelve dollars. We will send it by express, the receiver to pay charges, for subscriptions to FARM AND FIRESIDE amounting to only \$12.00.



## English Steel Razor (1425)

This excellent razor is made of the finest quality hollow-ground English steel. For the man who is used to this kind of razor, this is just the thing. Has a keen, hard cutting surface and will keep its edge for a long time. Made by the famous Torrey Razor Company and guaranteed to be of the very highest grade. Sent postpaid for subscriptions to FARM AND FIRESIDE amounting to only 75 cents.

## Reliable Fountain Pen

This Fountain Pen is made by the largest manufacturer of Fountain Pens in America and is guaranteed thoroughly reliable in every respect. It has a gold pen point and the barrel is beautifully chased. A Fountain Pen is of great use to any farmer or business man and is always ready and comes in very handy when you want to jot down notes or make a memorandum. This fine Fountain Pen is sent complete in a case with a filler, postpaid, for subscriptions to FARM AND FIRESIDE amounting to only \$1.50.

## Split Bamboo Fishing Rod

This handsome fishing rod is made of good quality split bamboo and comes in three pieces. It has strong joints and is equal to many fish poles selling for \$2.50 to \$3.00. We are confident it will greatly please any one who is fortunate enough to get it. Cork handle, joints and ferrules nickel plated. This rod is suitable for either bait or fly fishing. Sent by express, receiver to pay charges, for subscriptions to FARM AND FIRESIDE amounting to only \$2.75.

## Pearl Handle Penknife

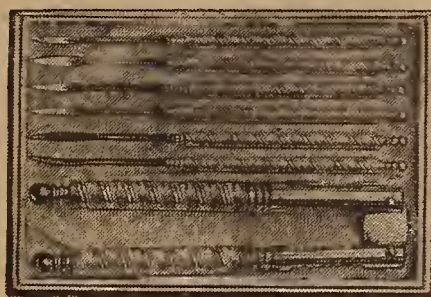
This is a handsome Penknife. Has beautiful pearl handles and four of the finest quality steel blades. It is a perfect beauty. Sent postpaid for subscriptions to FARM AND FIRESIDE amounting to only \$1.00.



## Safety Razor With 12 Blades

Almost every man uses a Safety Razor these days. They are so much more convenient, so much easier to use, and so much quicker than the old kind. It is impossible to cut one's self with a Safety Razor like this. The one that we offer here is made of the best English steel and has twelve fine quality, wafer-steel blades included. Requires no honing or strapping as the blades are so cheap that they are thrown away when dull and it is cheaper to buy new ones than to have your razor honed.

The complete outfit, complete in a nice case, is sent postpaid for subscriptions to FARM AND FIRESIDE amounting to only \$3.00.



## Handsome Silver-Plated Nut Set

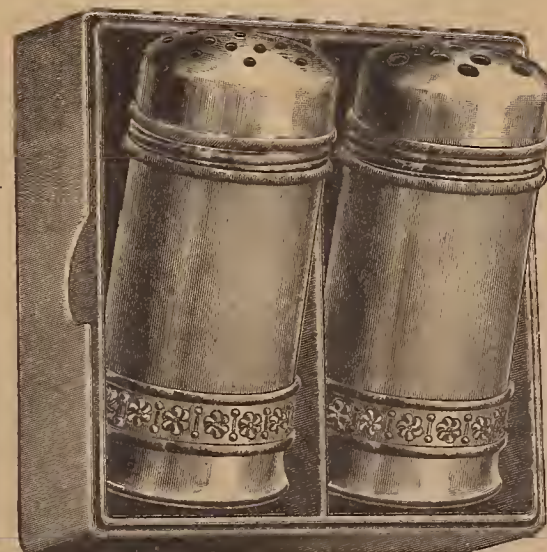
This set consists of six nut picks and one heavy nut cracker. All finished with the best quality silver plate. All the articles are handsome in design and strongly made. They will be an ornament to any one's table and in their pretty case make a really beautiful set. The whole set is sent postpaid for subscriptions to FARM AND FIRESIDE amounting to only \$1.25.



## Our New Premier Phonograph (306) and Three Columbia Gold-Molded Records

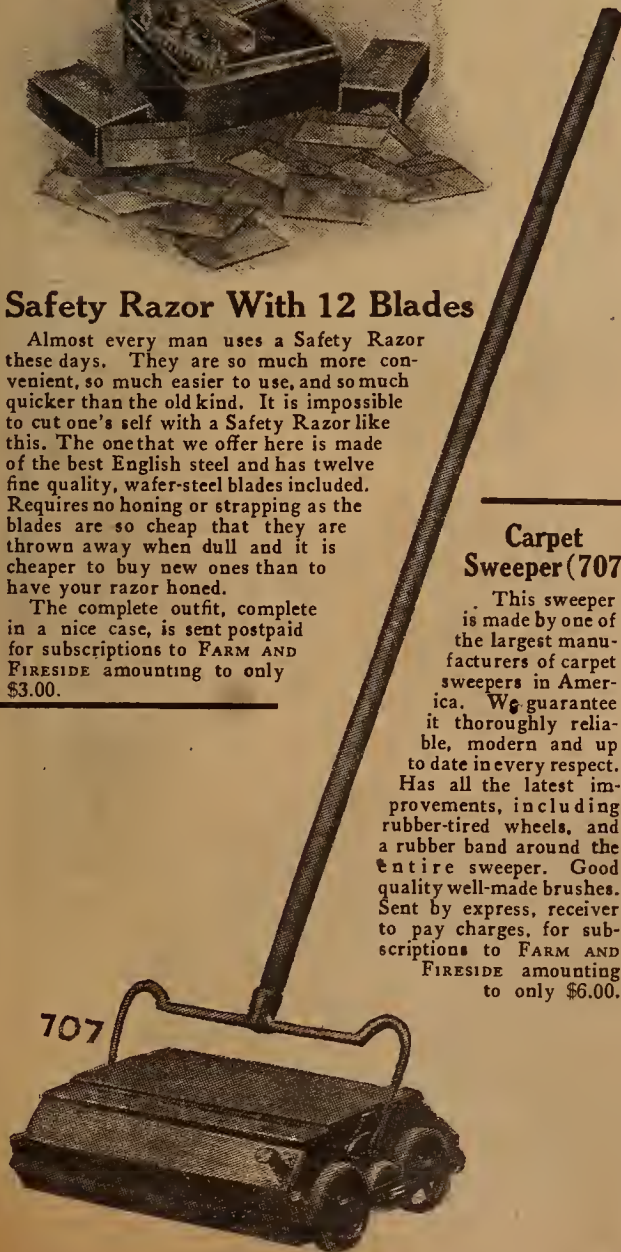
The Premier Phonograph has a powerful motor, guaranteed to run through more than one record. Has a heavier spring than any other talking machine. It is equipped with a new anti-slipping device, to prevent the sound box or reproducer from slipping on the record, thereby improving the tone quality greatly. Each machine is equipped with a New Grand Opera Reproducer. It is twice the size of the ordinary reproducer. This talking machine will reproduce Grand Opera or any other records as perfectly as any other talking machine on the market for twenty-five dollars. Uses both Edison and Columbia records.

The New Premier talking machine with three records will be sent to any one for subscriptions to FARM AND FIRESIDE amounting to only \$7.00, express charges to be paid by receiver.



## Silver-Plated Salt and Pepper Shakers

This Salt and Pepper Set is of the best grade of silver-plated ware. The body of each shaker is finished in a beautiful satin finish, while the top and the lower part up to the embossing is highly burnished. Each one is  $2\frac{3}{4}$  inches high and  $1\frac{1}{4}$  inches in diameter. Their wearing qualities are of the very best. Sent postpaid for subscriptions to FARM AND FIRESIDE amounting to only 75 cents.



## Carpet Sweeper (707)

This sweeper is made by one of the largest manufacturers of carpet sweepers in America. We guarantee it thoroughly reliable, modern and up to date in every respect. Has all the latest improvements, including rubber-tired wheels, and a rubber band around the entire sweeper. Good quality well-made brushes. Sent by express, receiver to pay charges, for subscriptions to FARM AND FIRESIDE amounting to only \$6.00.



# How to Obtain the Season's Greatest and Best Flower Offers

Without Cost to You

These beautiful flowers are the finest obtainable. And we guarantee that they

WILL BLOOM THIS SEASON OF 1909

## The Five Prettiest Roses (ORDER AS No. 101)

are the ones we have chosen for your collection. Many of these roses when in bloom sell for \$4.00 to \$6.00 a dozen at florists'. Any one of them is worth more than a whole year's subscription to FARM AND FIRESIDE costs, but you can get absolutely without cost all these five plants—the Climbing Meteor, Bright Red, Hardy Yellow Rambler, Bright Pink, Pure White. See our liberal offers below and opposite.

## How to Get the Flowers With Your Own Subscription

1. Send us \$1.00 for FARM AND FIRESIDE five years (120 numbers) and any one collection of flowers postpaid.
2. Send us 50 cents for your own subscription one year, some friend's subscription one year, and any one collection of flowers to you, postpaid. (Get your friend to give you 25 cents for FARM AND FIRESIDE. Then your own subscription, including flowers, will cost you only 25 cents.)
3. Send us 40 cents for your own subscription one year and any one collection of flowers.

These offers good only for a limited time, after which every one must pay the increased price.

**Special!** With every subscription sent to FARM AND FIRESIDE in connection with any offer on this page, we will furnish without cost the "Home, Sweet Home" Calendar for 1909.

## Four Elegant Ferns (ORDER AS No. 104)

Of all plants for pot or interior decorations, ferns occupy the place of favor. This collection consists of the leading varieties—Boston, Emerald, Fountain and Asparagus. These varieties frequently sell for 50 cents each. See our liberal offers above and opposite.

## Guarantee

All of the plants will be large, healthy and well rooted, and will bloom the coming season. We guarantee them to be exactly as described, to arrive in perfect condition, and to give entire satisfaction or your money cheerfully refunded.

The Climbing Meteor—a Bower of Fragrance

## Five Fragrant Carnations (ORDER AS No. 109)

The carnation was President McKinley's favorite flower. Being unrivaled in rich and refreshing fragrance, and unapproached for delicacy and beauty of outline, it is not to be wondered at that next to the rose it has become the favorite flower. The collection we offer you contains five different colors: One Rich Scarlet, One Deep Pink, One Light Pink, One White, One White Striped With Scarlet. See our liberal offers below and opposite.

## How to Get the Flowers for Obtaining Other Subscriptions

4. Any one collection of flowers will be given for only two subscriptions to FARM AND FIRESIDE at 25 cents each. One of these may be your own subscription.
5. Any two collections of flowers will be given for only three subscriptions to FARM AND FIRESIDE at 25 cents each. One of these may be your own subscription.
6. Any three collections of flowers will be given for only four subscriptions to FARM AND FIRESIDE at 25 cents each. One of these may be your own subscription.

These offers good only for a limited time, after which every one must pay the increased price.

**Notice:** If any person, whose subscription you obtain, wants a flower collection, add 15 cents to the price of FARM AND FIRESIDE alone.

## Six Magnificent Chrysanthemums (ORDER AS No. 102)

The chrysanthemum is the prettiest late autumn and winter flower. Small plants set out in the spring will have formed large plants full of blooming shoots by September. We will send in this collection six large-flowering Japanese varieties, as follows: One Pure White, One Deep Yellow, One Light Yellow, One Light Pink, One Deep Pink, One Beautiful Red. See our liberal offers above and opposite.

## Cultural Directions

Collections must be ordered entire. Accompanying each lot of plants are full directions for planting, care, etc. Please state what month you prefer to have your plants sent to you.

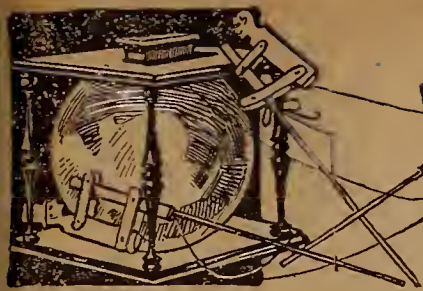
CHRYSANTHEMUMS No. 102

FERNS No. 104

Send All Orders to Farm and Fireside, Springfield, Ohio

Photograph of the Bright Red, Yellow Rambler, Bright Pink and Pure White Roses





# Politics

By Alfred Henry Lewis



IF THERE WERE EVER AN INDIVIDUAL who liked work less than I do, I have failed of his acquaintance.

Now when I push from the bank upon this article, I have made up my mind to drift. Surely there be currents to ink. Many times have I written upstream until my pencil grew as heavy as the oar of any galley slave. I am aware that in most ears the word "drift" is only another name for disaster, and condemned of the world. The world itself has been adrift for ages, yet it fails not to advise against drifting as though advising against a crime. For myself, I care nothing for advice.

Long ago I was taught to scorn assistance, and rely upon myself. I had touched the unripe age of twelve when I learned that lesson, and it came to me not so much the result of thorny experiences personal to myself, as through what happened to a friend.

This lad was of years even with my own, and the bond between us was a common love for a literature, issued by one, Beadle, at a cost to the consumer of a dime per book. Influenced by our reading, it was the purpose of my friend and myself to run finally away from home. He, however, was ready to start before I was; he read faster than I did, and got his mental equipment sooner. Off he started, first dropping me a line naming the particular tribe of Indians he intended to join.

My friend was popular with his family, and had reason to fear pursuit. His legs seemed unduly short under these fugitive circumstances; it would be sapient to connive some assistance. With this upon his mind, my friend, being near the "Basin" at the time—it was in Cleveland—negotiated passage upon a canal boat. The craft was loaded with lumber, and his coat for a pillow, my friend lay down on the cargo and watched the tow-path mules—they seemed to be somnambulists—until he fell asleep.

After eight hours of refreshing slumber he awoke just as the sun was gilding the eastern sky. He had an exhilarating sense of security, born of those miles upon miles which now lay between himself and home perils that he feared.

Strolling aft, my friend asked the commander of the canal boat—that worthy man was sitting astride the tiller—how many miles they had come. He was told that they were at the eight-mile lock.

Eight hours, eight miles!

Consider the horror of my friend! After a whole night of desperate flight he was at the eight-mile lock! To make bad worse, his father was also at the eight-mile lock, and my friend went homeward to his weeping mother by the ear. Later, in considering his adventures, both he and I resolved never to accept assistance during any crisis of our lives. It might come from a canal boat.

\* \* \*

IN WASHINGTON the other day I was watching the statesmen at their labors. It was dull work. By the way of lightening my burdens I went riding in a taxicab. As we buzzed through the Mall the sight of the Smithsonian set me thinking, or rather remembering. Let me tell the yarn this fashion. Mayhap there is a lesson in it. At least there should be a ray or two of unimportant light.

The bones of Smithson, after a wait of seventy-five years, were brought to Washington from Genoa to rest in the grounds of that institution of which he was the founder. Here is the story. It is one which registers a sentimental injustice, if not a wrong, in fact. By its light the state of Arkansas makes but a sorry picture, while the government gains display as foolish at once and derelict.

James Lewis Macie Smithson—to give that departed scientist his full name—was born in France, and the best guesses have fixed the date at 1765. The English Duke of Northumberland was his father; but since, in the phrase of heraldry, our hero made his advent by the left hand, no uproar of rejoicing arose to mark his coming. Instead, a vast fog of silence descended in these days to cloud the year of his nativity with doubt.

When Smithson grew to man's estate, the bar sinister on his coat armor was a reason of gloom. Sensitive rather than sour, the blot on his birth drove Smithson morbid, and as much as he might he hid himself from men. He particularly avoided England as though that country held a plague; and living to the age of sixty-four, he passed his life abroad, his latter years in Genoa. Smithson took up scientific studies. He went far with chemistry and mineralogy, and the Royal Society adopted him as a Fellow.

If you don't agree with Mr. Lewis, "talk back" to him, confining your reply to two hundred words. We shall hope to publish some of these replies from time to time.—THE EDITOR.

While Smithson's life owned its burdens, a want of money was not one. He lived rich; and in June, 1829, he died rich. When his will was read, among Smithson's bequests was one to the United States of one hundred and five thousand pounds. It would not be operative until 1835. The United States was directed to hold the money in trust for the purpose of founding "at Washington an establishment under the name of the Smithsonian Institution for the increase and diffusion of knowledge among men." Both Andrew Jackson, who was President, and John Quincy Adams, who would have been if he could, were much interested in the Smithsonian bequest, as their papers and diaries of that hour show.

There was the usual "law's delay." Still, when one considers the obsolete sort of English chancery machinery—rusty, slow, never oiled—much flattering speed was made. The British government, in a spirit of compliment to the United States, sent word to the chancellor. The chancellor bestirred himself for expedition. The amazing result appeared when within three years the money, five hundred and fifteen thousand one hundred and nine dollars, was set down in guineas in New York.

This was of the year 1838.

Eight years later, in 1846, this government—whose enthusiasm sensibly ran down when once it got the gold within its fingers—began slowly to stir in the matter of the Smithsonian. An "establishment," so called, was created to have the affair in charge. Also a board of "Regents" was provided, so that the proverbial multitude or counsel might prevail. The "establishment" consisted of the President and his Cabinet; while the "Regents" were to number the Vice-President, three senators, three representatives, and half a dozen names culled at random from the people. The executive control was to vest in a "secretary," whom the "establishment" and the "Regents" would select.

When these worthy bodies, the "establishment" and the "Regents," got to the practical building of the Smithsonian, there befell an unexpected gush of wisdom. A common mind would have begged ten acres of public ground, let a contract, and begun to pile up stones and mortar. Those superior ones, however, would do nothing so short-sighted.

They said, "Let us loan the half million. Then let us take those bonds which the money brings and borrow from the general government. We can get six per cent for the money; we will borrow for three per cent; the Smithson fund will thus have three per cent wherewith to pay the expenses of the institution."

It was a beautiful program! It would pay as profit a clean three per cent! The sage "establishment," in conjunction with "Regents," equally as sage, lost no time in going about its execution.

Mr. Corcoran—he of the gallery and Power's Greek Slave, to say nothing of Canova's Lions—was given the money to dispose of in accordance with the scheme marked out. Mr. Corcoran advertised "for bids." The sum involved was a large one more than threescore years ago. It is not so magnificent now, when folk regard a million dollars as the merest mustard seed of finance. Numerous were the applications, and Mr. Corcoran had a baker's dozen of would-be borrowers to choose from.

Among those who stretched forth a borrowing hand was the state of Arkansas—lying on the sunset side of the Mississippi, and at the time I talk of, preserving that type of American chivalry which drank "peach and honey," paraded its foe at ten paces, and diverted itself with "draw poker, two call five." Arkansas offered six per cent and got the money. She issued bonds therefor, and these were given to the Secretary of the Treasury to hold.

That officer has held them ever since.

If Arkansas, when now she became a debtor for the Smithson money, had minded honor and paid the interest when due, this column would have escaped the sorrow which is slowly flooding it. But Arkansas did not. With airy forgetfulness, Arkansas fell asleep on a situation which left her a half million better off and Smithson—since he had been successfully dead for almost twenty years—personally no worse.

Arkansas has never paid a dollar, principal or inter-

est, on those Smithson bonds. Buried beneath the dust of over sixty years, they lie in the Treasury with every coupon which originally adorned them. So far as one may learn, those dignitaries, the "establishment" and the "Regents," have never wounded the sensibilities of Arkansas with demands for the money.

There you have the story of a good dead hand that one day shot an arrow; and how the arrow, well and benevolently aimed, met in its flight that flicker of deceitful wind which was to turn it and send it astray. But is it not an irony that never a dollar of Smithson's money should go into the institution which bears his name? That it should be made, instead, to line the hopeless pockets of Arkansas? The general government in sheer shame put up the money to build the Smithsonian. In sheer shame it puts up the yearly money to support it.

The bones of Smithson were brought ashore, and a wide moral gate opened for Arkansas. That absent-minded commonwealth might have multiplied a funeral effect to the point of the dramatic, by counting down on the casket of the dead philanthropist that money she had owed so long. Those who had in charge the Smithson remains, and were issuing invitations to the sundry states to take part in what ceremonies were purposed, should have added a foot note to the one for Arkansas: "Instead of flowers, send the money that you owe!"

\* \* \*

THE POSTAL SAVINGS BANK BILL is now pending in the Senate. Every publicist I talked with thought it ought to pass, wanted it to pass. Yet one and all they feared the opposition of those money gods, the national banks. The latter it was assumed would look upon the government in the banking business as the rival shop, and send potential word to their congressmen, whose names are legion, to have it killed. Which ought to be a good reason why you who read should send word to your congressman—if he hasn't been stolen from you and counterbranded into the money herd—to make the fight of his career for its passage.

What is the great element of the postal savings bank? Safety to Depositors. Which is the first great need in a bank. The nation would stand sponsor for every dollar brought into the postal banks; and the nation doesn't embezzle, doesn't gamble in Wall Street, doesn't go into the hands of a receiver, doesn't change its name and skip to Europe when the smash arrives.

Deposits being wholly safe, there would come no runs on the banks. Also, there would be no panics, the ruinous corollaries of those runs by stampeded depositors. Given the postal banking system, there would be no black chance of your going down to your bank in the morning and finding in the window a notice that the doors had been locked and a receiver installed over night, and that you couldn't get a splinter of your money until Mr. Morgan, or Mr. Rockefeller, or Mr. Stillman, or Mr. Ryan, or what other son or sons of the Wall Street Æolus had seen miserably fit, for their own criminal aggrandizement, to blow up a stock storm.

When you lose, somebody else wins. In the late panic, when you lost, the Morgans and Rockefellers and Ryans didn't lose. They quit richer by millions—millions collected from a million honest pockets. These excellent gentlemen are the wreckers and beach combers of finance. When the oceans of commerce are storm lashed, they put on their financial oilskins and walk the beach. Some ship of trade—this firm or that firm—founders and breaks to pieces. They pick up the pieces. Half of Mr. Morgan's, all of the late Mr. Sage's money, was made in that beach-combing way.

There is, however, this difference between the real beach comber and our great beach combers of stocks. The Morgans and Rockefellers for their beach combing don't have to wait for a storm. They can produce one whenever they will.

There should be no difficulty in evolving a perfect bank—a bank that is secure and sure. They make ships safe, and a bank isn't so complicated as a ship. The postal savings bank would be a money ship which no reef could sink, no tempest drive ashore. Being storm safe, people would no longer hide their money in strong boxes, tin canisters and old stockings.

By the postal savings bank system, aside from a rock-ribbed security, you would be paid interest on your deposits. Having need of money, you could borrow it for about one half what you pay now.

All these banking advantages of safety, sure loans, low interest and no panics have been within easy reach for years. But the politicians, dominated by the Shylocks, owned by the money changers, wouldn't give them to you. They didn't dare. They don't dare now.



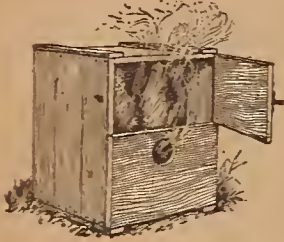


# The Household Department



## A Cheap Smoke House

**T**HIS ingenious smoke house is something that should interest all farm women. Aside from being practical, it is very inexpensive. A woman who has tried it says that it gives just as good service as though it cost a hundred dollars. It is made of a large packing box, three and one half feet deep and three feet wide. A wide cleat is put in the top, to keep the meat from hanging against the box. Two hams can be smoked in two days.



## Salt-Bag Dish Cloth

**F**OR a handy dish cloth, take a salt bag, and slip a thin piece of soap sufficient for one washing into it. This brings the soap where it is needed and leaves no particles of the soap on the dishes.

## The Importance of Cheerful Meals

**T**HE joy of the meal depends largely upon the cheer of the family around the table. Of course, we all have little cares and some big ones, but let us try to shake them off before we come to the table, and when we ask "God to make us truly thankful for what we are about to receive," suppose we think of our blessings and in doing so we will all be a blessing to each other.

## About Eggs

**C**RUSHED egg shells in a little water are splendid for cleaning decanters and bottles. If the eggs are emptied out so that the shells are left whole, they make the prettiest of molds for jellies, blanc manges, and so forth. They should be thrown into cold water for a short time before using, then the water drained out of them, and the shells placed securely in a basin of meal or flour before filling them.

The whites of eggs beaten with a little soda are extremely useful in renovating gilt ornaments and picture frames. Dust the pieces to be done very thoroughly, then brush them over with a soft brush dipped in the eggs-and-soda mixture.

In the case of a burn or cut where it is necessary to exclude the air, a little white of egg applied at once will prove a most efficient remedy. It should be applied with sufficient liberality to make a good "skin" over the injury.

Another medicinal use is to beat the white of egg to a stiff froth with two tablespoonfuls of rose water and use it as a lotion for inflamed eyelids. It should be gently applied with a little bit of old linen or cheese cloth and allowed to dry. Renew when necessary. As a poultice for a boil the moistened skin of a boiled egg is said to be a most efficient cure.

Jellies and preserves covered with white note paper dipped in unbeaten white of egg will keep as well as if in self-sealers. Press the paper down tightly over the edges of the glass or jar, and cover with several thicknesses of newspaper tied tightly around. The paper must be made to stick tightly to the glass. Of course, if sufficient white of egg is on it, however, this cannot be prevented.

## Sour-Milk Crullers

**S**IFT together four cupfuls of flour that has been sifted once, one teaspoonful of salt, one and one half teaspoonfuls each of soda and cream of tartar and one teaspoonful of mixed cinnamon and nutmeg. Rub in lightly with the fingers one cupful of sugar, then add two well-beaten eggs and one cupful of sour milk. Stir into a soft dough, toss on a well-floured board, and roll out lightly into a sheet an inch in thickness. Cut out the crullers, using a large and small cooky cutter, in order to make them in rings, and fry in smoking-hot deep fat.

Turn as soon as they come to the top, then lift out by a fork passed through the ring. Drain on brown paper and roll in powdered sugar. These should be crisp, tender and free from any suggestion of grease.

A point to remember in the using of sour milk is that milk of different degrees of sourness should not be mixed in baking. For cheese it does not matter so much.

## Good to Remember

**I**F THE skirt which is worn when working about the range or furnace is rinsed with water containing one ounce of alum, it will be rendered unflammable.

Sometimes the bread board becomes such a bad color that the usual cleansing is decidedly unsatisfactory. Put some salt in the water with which it is to be scrubbed and it will be noticeably whitened. Any grease spots may be removed by covering them with a paste of French chalk and water. Leave it on until dry, then wash the board in the usual manner.

Turning down the light in a coal-oil lamp is always a mistake, as it does not save the oil and makes an odor that is unhealthy as well as disagreeable. If it cannot be left burning brightly, put it out entirely. When turned low there is always danger of an explosion, as the oil feeds the wick faster than it is consumed. When the lamp is not in use the wick should always be turned below the top of the tube. When this is not done the oil oozes over and makes the outside of the lamp oily. If the flame of a lamp burns unsteadily it is probably caused by a collection of dust and dirt on the wick. To remedy and prevent this wash the wick thoroughly and then keep the tops of the chimneys covered with a neat piece of paper or a card when they are not in use.

Where you have a fear of contagion after the return of borrowed books, bake them in the oven for two hours before replacing them with the other books. Lay them on a newspaper and place them in an oven hot enough to kill the germs. This hurts the books somewhat, but it is better than taking the risk. If one buys second-hand books this method is advisable.

Eggs hard boiled, split lengthwise, and treated to a dash of smart salad dressing while yet hot, make a quick and inviting dish, especially in the absence of more definite relish.

When one is annoyed by the pulling out of the bed clothing at the foot of iron or brass beds, try putting one blanket over the lower fourth of the bed, tucking the remainder far under the mattress.

A fish bone in the throat is not only troublesome, but sometimes quite dangerous. The juice of a lemon rather slowly sucked will dissolve the mineral part of the bone and leave it sufficiently flexible that when other food or drink is taken it will pass through the throat with it.

To dry woolen sweaters or shawls, spread a sheet on the ground and weight each corner. Lay the sweater or shawl upon it in its original shape, and let the sun dry and bleach it. Turn it frequently from one side to the other. In this way the garment will dry light and fluffy and not be stretched out of shape.

## The Useful Lemon

**I**NK stains on white materials may be quickly removed by squeezing lemon juice on the stain and sprinkling salt over the wet spot. If the stain proves stubborn, place the garment in the sun for a few minutes. Lemon and salt should not be used on colored fabrics, as the acid takes out the color as well as the ink.

Stains on unvarnished wood may be removed by rubbing it with half a lemon which has first been dipped in salt.

A mixture of one part lemon juice and three parts olive oil is used by many housekeepers as a substitute for furniture polish.

Do you want to give your silver a specially brilliant luster? If so, rub it with a lemon before using your regular polishing liquid or whiting moistened with alcohol. The lemon seems to cut away the badly tarnished spots and does not harm the silver.

Every housekeeper should keep half a lemon on the kitchen shelf, along with her soap. She will find that fruit and vegetable stains will disappear quickly if the lemon is rubbed on her hands before she washes them with soap. It is not necessary to use freshly cut lemons for this purpose. Lemons that have been squeezed for flavoring puddings and pies or making lemonade have sufficient juice left in them to make them useful for cleaning the hands. It is a wise woman who keeps these partly used lemons in a stone or agate jar and disposes of one every day or so.

The business woman should have a lemon on her dressing table, for the purpose of removing ink and pencil stains from her hands. Indeed, some make a point of squeezing the juice into a bottle with a glass stopper and having it always ready to use.

## Concerning the Refrigerator

**T**HE cooling of foods, especially fish and fruits, such as bananas, which have a very penetrating odor, may be easily accomplished by keeping on hand a number of tin boxes or small pails with close-fitting lids, in which the odorous food may be securely shut, and set in the refrigerator, with no fear of its scenting the other things. Coffee boxes and lard pails serve this purpose nicely.

A large lump of charcoal kept in the food-cooling chamber will do much to keep the air fresh and free from reminiscent odors.

If you have a somewhat sheltered porch, set your refrigerator on it for the winter. Remove the wooden door, and in its place have a door of screening made, on the inside of which, for further protection from dust, hook tightly stretched muslin curtains. No ice will then be required except for frozen dishes.

## The Care of Sewing Machines

**T**HE moment the sewing machine refuses to run properly, the first thing that most every woman does is to dose the parts with oil. This is a bad mistake. Too much oiling is injurious, and to oil it when it is dusty is worse than none at all. The cracks and crevices should be dusted as well as the surface. Of course it is impossible to use a cloth for this purpose. Instead use a coarse silk thread and draw it back and forth to get out fine dirt that cannot otherwise be removed. If one has a small bellows it will be found just the thing to use to blow fine lint, threads and ravelings out of the crevices.

Never use cheap oil on your machine; it generally cakes and makes the parts sticky. A little vaseline or oil rubbed occasionally on the running strap will do no harm. Always be most careful to see that the machine is covered when not in use; dampness is very harmful to it.

## To Clean Ceilings

**R**OUGH and flaky ceilings may be treated with a wash of alum and water in the proportion of one ounce of alum to one quart of water. This will remove the superfluous lime which has caused the roughness, and make the ceiling fresh and white. Cracks in the plaster may be filled with a paste made of whiting mixed with glue water, or calcined plaster and water.

## Properly Cooked Food

**I**F GOOD, wholesome food is overcooked it loses most of its nourishment. Meat especially should be most carefully cooked. It should be cooked to a certain point, and when once that point has been reached further cooking is nothing but a mere waste of material. Neither should good food be cooked rapidly. If meat is allowed to boil five minutes too long, it becomes tough, tasteless, hard, and indigestible in the bargain.

Then there are a great many women who spoil good food by overseasoning it. Nothing tastes worse than soups and stocks which have been spoiled by an overdose of salt.

## How to Make a Veal Pie

**C**UT the veal into rather small pieces or slices; put it in a stew pan with hot water to cover, add to it one tablespoonful of salt, and set over the fire; take off the scum as it rises. When the meat is tender, turn it into a dish to cool; take out all small bones, butter a tin or earthen basin or pudding pan and line it with pie paste, and lay some of the parboiled meat in it to half fill it.

Put bits of butter the size of a hickory nut all over the meat, shake pepper over it, dredge wheat flour over it until it looks white, then fill it nearly to the top with some of the water in which the meat was boiled. Roll a cover for the top of the crust; puff paste it, giving it two or three turns, and roll it to nearly half an inch in thickness. Cut a slit in the center and make several small incisions on either side of it; put the crust on, turn the edges neatly with a knife, and bake one hour in a quick oven.

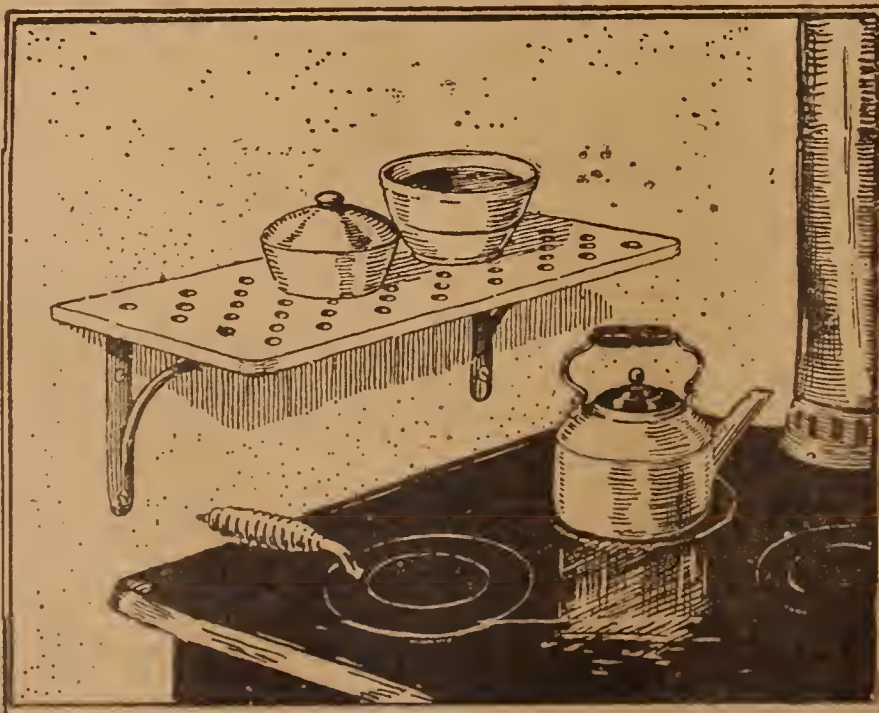
A breast of veal will make two two-quart basin pies; one half pound of nice corned pork cut in thin slices, and parboiled with the meat, will make it very nice, and very little, if any, butter will be required for the pie. When pork is used, no other salt will be necessary. Many are fond of thin slices of sweet ham cooked with the veal for pie.

## Potato Cakes

**S**AVE from dinner a soup plate of mashed potatoes; add to it one half saltspoonful of pepper, the same amount of nutmeg, if liked, a little salt and the yolk of an egg. Form into cakes, put in a buttered baking dish, brush the top with the white of an egg, and brown in a quick oven.

## Baked Indian Pudding

**F**OR a baked Indian pudding such as New England grandmothers used to make, seald one fourth of a cupful of corn meal in a quart of milk, stir in one half cupful of sugar, one half cupful of molasses, one tablespoonful of butter, and salt and ginger to taste. Bake the pudding very slowly for three hours and a half, adding milk as it thickens. At its best it is more like a custard than a pudding.



Warming Shelf

If one has an old-fashioned stove with no warming oven, it is always a conundrum to know how to keep warm the food that is just cooked. One woman conceived the idea of putting up over the stove a perforated shelf like the one illustrated, and she has found it a very great convenience. Perhaps this idea might appeal to some of our women readers.



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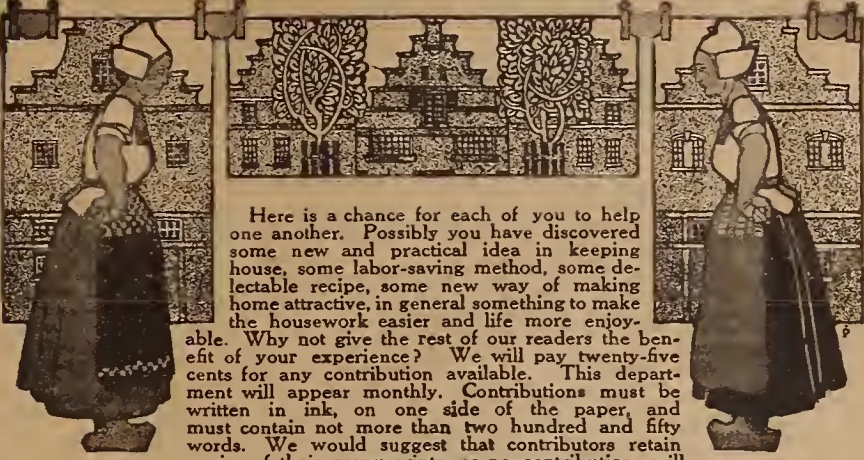
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Be Systematic

I FIND a distinct advantage in allotting certain work to certain days of the week—nothing falls behind, and the work is less of a drudgery when divided equally among the days.  
Monday finds the larder depleted, and myself somewhat tired from attendance on the Sunday evening church service, so the day is spent in getting ready for Tuesday. The Sunday clothes are brushed and put away, the house set to rights throughout, some extra cooking is done, the soiled clothes gone over, stains removed, and mending, best done before laundering, attended to.  
Tuesday the washing is done, and the clothes sprinkled ready for the ironing which follows on Wednesday morning.  
On Thursday the mending is done, and such extra work as arises each week.  
Friday is sweeping day, and the whole house except the dining room and kitchen receives a thorough cleaning.  
On Saturday extra baking is done for Sunday, the kitchen, dining room, porches and walks are cleaned, and the children given their bath.  
On Sunday little cooking is necessary, and the day is given to church, reading, rest and recreation.  
The "staples" disposed of, minor duties adjust themselves to the days of lightest work, and the afternoons are free from household cares.  
P. J., Texas.

For Frosty Wash Days

IN VERY frosty weather it is the hanging of small things, like napkins, handkerchiefs, stockings, etc., especially when there are many children, that takes the time in the cold air and makes our fingers suffer. Still we like our clothes dried out of doors.  
It is a good plan to have several strips of line outside of the regular clothes line, binding each end firmly with a strong piece of cloth.  
Pin your handkerchiefs, etc., to these lines in the house, dropping them into the clothes basket as you go along. Take out one line at a time in the basket, and fasten each end firmly to the regular line with one clothes pin and one in the middle. It will take but a moment to do, and it is a great convenience in cold weather.  
J. A. F., California.

The Value of Olive Oil

IT is a well-known fact that no one eats as much olive oil as he should. It is not always pleasant to take and it is not so beneficial when taken with vinegar or lemon juice as when taken alone. I have found that an excellent and most nutritious way to take it is on sliced bananas. It doesn't sound palatable, I know, but just try it for yourself and be convinced.  
J. E. G., Massachusetts.

Baked Rice

WE HAVE discovered that baked rice is an improvement upon boiled rice. Put a cupful of rice in a pudding dish, add one teaspoonful of salt and one quart of liquid (water and milk, or wholly milk), and let it bake until thoroughly cooked. Sometimes you may need to stir it at the first if your oven is very slow, and you may need to add more milk. Serve hot or use cold for croquettes.  
P. E. R., Virginia.

To Prevent Mark From Clothes Line

TO PREVENT the black mark from the wire clothes line, tear strips four or five inches wide from an old sheet, and pin on the line; when the clothes are pinned over this, the black mark is avoided. I have scoured the line and tried many other remedies, but find this the best way yet.  
A. M. G., Pennsylvania.

How to Mend Sacks

HERE is a splendid idea that I wish to pass on to our readers. When mending grain sacks, one can save a great deal of time by cutting the patch a bit larger than the tear. Make a paste of flour and cold water, put a thin coating of this on the patch, then carefully fit this over the hole and press with a medium-hot iron until dry. Sacks mended in this way will last for years.  
Mrs. Wm. G., Minnesota.

A Jelly Bag Which Does the Work

I HAVE actually invented a jelly bag, and this is how I made it: I bought a coarse piece of white flannel, and made it into a funnel-shaped bag, made an inch hem all around the opening and sewed large dress hooks on at intervals of about four inches. Then I took the flat ring off an old water bucket, secured three wires to hang it up by, then drove a long nail into the edge of one of my cellar shelves; on this I hang my bag, set a bowl under it, pour my fruit into the bag and leave it to drip and hang all night. When I empty the bag I have no squeezing to do and no staining of my hands, and the juice is clear.  
M. E., New York.

Two Good Hints

WINDOW cleaning was always a great worry to me until I tried using a little kerosene in the wash water. A teaspoonful to a gallon of water is all that is necessary.  
I have also discovered an excellent polisher for windows. When stockings get beyond the darning stage, I sew the legs together and use them as a drier. They are free from lint and polish quickly and easily.  
Mrs. A. W., Illinois.

If Your Wash Tub Leaks on Wash Day

IF IN a hurry to use a tub which leaks, I press common soap into all the cracks from the outside, and you will suffer no inconvenience from its use.  
J. R., Ohio.

One Way to Be Attractive

THE housekeeper has many things on her mind, but she should not neglect giving at least ten minutes out of every twenty-four hours to her own personal attractiveness. Every boy and girl thinks "mama" is beautiful, and why should she not be universally admired, even though not beautiful by nature, if her appearance shows she has taken care of her complexion? Every night, just before you retire, try washing your face with good soap, rinsing and drying well, then rubbing with a solution made of two parts of rose water, one part of glycerine and the juice of two lemons. Have enough altogether to make one pint. Put just enough on to make the face moist, and rub until the skin is rosy red. If there are any wrinkles around your eyes or mouth, be careful that you do not rub parallel with them, but straight through, crossing them. The effect will surprise you. The freckles, tan and wrinkles will gradually grow dim, leaving a soft, pink white, smooth skin.  
Mrs. B., Virginia.

How to Make Dutch Green Paint

I HAVE discovered that fine old Dutch green paint for floors and chairs can be made by taking common crude "blind green" paint and mixing into it black paint and burnt sienna paint in quantities to make it look as antique as you desire. The floor looks so much more cheerful painted with this color than when painted brown, gray or yellow.  
P. E., Ohio.



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# The Soul of Honour

By Lady Troubridge



## CHAPTER VI.—OF THE WORLD, WORLDLY



Each house has its atmosphere which emanates from the people who live there, and which the visitor is sensible of immediately he crosses the threshold of the door.

In Lady Windermere's house, although Jack Taunton had not been admitted further than the hall, he had been conscious of a kind of somber magnificence—a pride of class and of race which seemed to have infected even the insolent-looking footman through whom the wishes of his master and mistress were carried to the visitor.

In Sarah Gibson's little diggings the mental atmosphere had been bright and breezy, suiting itself far better to the Australian's free and easy ideas—a kind of strenuous, hard-working, yet happy life had spoken to him in the clean, bare rooms, the simple wicker furniture, the makeshift contrivances.

And now in Marcia Kenyon's abode, where he had come to meet Hyacinth—come to say a good-by that was to be eternal, quite another feeling came over him. Neither pride nor pomp, nor hard work, plain living and high thinking were represented here. It was the beauty and luxury of life, its glitter and artificial side, which seemed to encounter him as he passed through the exquisite little oak-paneled hall, the walls of which above the paneling were hung with pale silk, which peeped between the rare pictures with which the wall space was almost entirely covered. Each dim recess shone with a misty radiance of white blooms and heavily scented flowers standing on low tables, giving an effect less like the severity of an antechamber, and more resembling a boudoir. A sweet, subtle odor, half of flowers, and half of some Eastern perfume, like sandalwood, met his nostrils as he climbed the stairs, and everywhere there was the same profusion of beautiful objects grouped together with seeming carelessness, yet with a deep artistic significance.

Each step he took in this luxurious interior seemed to depress him more and more. Nature seemed utterly banished, and artificiality reigned supreme. The room where he waited for Hyacinth was a long, spacious music room, which, to his simple eyes, would have seemed more beautiful had it been less crammed with heterogeneous masses of furniture, until it appeared as though the contents of at least four ordinary rooms had been emptied into it; while, as for the ornaments which lay in profusion on all the tables, they revolted his masculine ideas of comfort, for nowhere was there room to put down even a book or a paper.

Hardly had he taken in all this when Mrs. Kenyon, Hyacinth's friend, stood before him, and he saw a merry, smiling face, almost extinguished under an enormous mushroom hat, which shadowed her laughing eyes. She was a slight, tall woman, so overdressed that it seemed there was hardly an inch of her unadorned with some trimming of falling lace or hanging chain, or winking jewel; even the long skirts which swept around her as she moved were patterned with a trelliswork of lace insertion. It was a veritable masterpiece of the dressmaker's art; but to Taunton it appeared terribly overdone. However, he was fain to be thankful for the kind smiles of the newcomer as she put out her hand.

"I have heard all about you," she said, "and it is very naughty of me to allow you two foolish people to meet at all, for you know Lady Windermere is my relation, and you know also what utterly different views she has for dear little Hyacinth."

"I know, Mrs. Kenyon," said Taunton, earnestly, "and if I didn't think that Hyacinth cared for me I shouldn't have dreamed of coming here. But she does—she has told me so; and so I don't see how any one can expect me to stand quietly by and see her marry a man she doesn't care for!"

This was his great argument—the simple law of life in which he had been reared. If two people love each other, and they are free, nothing else matters. But it was not the law of Mrs. Kenyon's world, and she shook her head as she listened.

"I am very sorry, Mr. Taunton," she said sweetly. "But you must really give me a better reason than Hyacinth's silly fancies; or shall we say 'fancies' and leave out the 'silly'?"

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## Synopsis of Previous Chapters

Chapters I. and II.—The story opens on Cup Day at Ascot. Among the fashionable throng are Lady Windermere and her daughter Hyacinth. The younger woman is advised by her mother to accept Marcus Quinten, who, on the death of his cousin, Lord Vannister, will be a rich man. Lady Windermere speaks disparagingly of Jack Taunton, Quinten's Australian friend, and Hyacinth demurs. Quinten asks Jack for a loan, telling him that he means to propose to Hyacinth that day. Taunton reproaches Quinten for posing as a wealthy man and representing him (Jack) as being poor. Taunton asks Hyacinth if she could care for him, but she tells him her parents wish her to marry Quinten. A woman at the gate of the paddock recognizes Quinten, and greeting him as her husband, upbraids him with attempting to desert her. He coolly tells her that their supposed marriage was a mockery, and leaves her, fainting. Taunton comes to her assistance, and her friend, Sarah Gibson, tells him the Story of Honour Read and her marriage to Marcus Quinten. Returning to the Windermeres, he is informed of Hyacinth's engagement to Quinten.

Chapters III. and IV.—Taunton is shocked to hear of Lady Hyacinth's engagement to this man, Quinten. They arrange to meet once more for a last talk. Then Taunton seeks out Marcus Quinten, and tells him that he knows Honour Read and her sad story. He demands that Quinten should break off his engagement to Hyacinth. Quinten refuses point blank, and Taunton threatens to tell Hyacinth everything and to help Honour Read to assert her rights. Quinten is still defiant. On returning to London, Jack calls at the Windermeres, but is informed that my lady is not at home. He has, however, been invited to lunch by Marcia Kenyon, a mutual friend, where he hopes to meet Hyacinth.

Chapter V.—Honour Read tells her friend, Sarah Gibson, that she will have nothing more to do with Quinten, and expresses her regret that she cannot find employment. Jack Taunton calls at their rooms. He suggests, partly in consideration of his own interests, that he should induce or compel Quinten to break off his engagement to Lady Hyacinth Windermere, and really marry her (Honour Read). She points out that the man she once loved, hates her now, and has made it possible for her to pass out of his life. Then Taunton tells Honour that he thinks he can secure a position for her, and proceeds to detail the peculiar requirements of Lord Vannister. He is a misogynist, and requires a secretary, who will not trouble him personally. She gratefully accepts his good offices in securing the position, and receives by wire, on a few hours, a favorable reply to her application. Honour begs Taunton to prevent Quinten's marriage with Hyacinth, but he points out that he cannot do so, as she (Honour) will not allow him to tell them the truth about Quinten's character.

Taunton drew himself up, and his honest eyes met hers unflinchingly, almost coldly.

"I can give you other reasons," he said, "but there is not a better reason in the world than I have given you."

She took no heed of the quiet words, but she turned and pointed to the door.

"Here is this naughty girl," she said. "We must see what she can do with you; but I warn you I'm not going to leave you long together. I shall come back in ten minutes, and then we must hold a little conclave of war."

She tripped away as she spoke, and, passing Hyacinth, who was entering the room, she whispered a word in her ear—perhaps a word of warning; anyhow it brought the color to the girl's face, but without answering she passed on toward the man waiting, and as she came up to him he caught his breath in a sudden rapture at the sight of her face, for Hyacinth looked the embodiment of girlhood, with all the innocence, all the exquisite appeal of that wonderful time.

In the violet pools of her eyes there seemed a reflection of spring, and in the glittering masses of her golden hair she seemed to have caught and imprisoned the summer sunshine, and the red glow of the dawn was in the blush with which she greeted him. This was what he saw, and he imagined the rest—imagined that loyalty, that unselfishness, and that high feelings must lie beneath an exterior which was so very sweet. It is the common error into which all men have fallen, but it lightened his heart, as slowly and lingeringly he kissed her hands, holding first one and then the other to his lips.

"At last, Hyacinth," he said. "At last!"

She looked around her anxiously, and a look of trouble darkened her eyes.

"It was very kind of Marcia, wasn't it," she said, "to let us meet again."

"It was more than kind," he answered. "It was heavenly of her; but, Hyacinth, my Hyacinth—his voice was low as he named her—"it must not, it cannot, be the last time; that is to say, if you meant what you said to me at Ascot. If you didn't, dear, if the words were surprised from you, or came from you against your will, then they have not been said; only tell me that, and tell me quickly, for I think I am strong enough to bear it."

She looked up at him, and her lips trembled into a proud smile. Yes, he seemed strong enough for that, strong enough for anything; but what she dared not tell him yet was that she felt no such strength in herself; that she looked back upon that passionate moment with a kind of terror. It had been secretly done, and very sweet to her while it was secret, but to have it drawn out into the open light of day, to have her pretty idyl exposed to her father's contempt and her mother's proud anger, was more than she could bear, and she dimly felt that her lover expected something of her—some height of devotion and of self-sacrifice which she could not give. And this puzzled and frightened her.

It was true that he did not speak of his money to Hyacinth, for that seemed to him an impossible thing to do, but he was far from realizing that it was the only argument which could have affected her and those who controlled her.

And yet, as they stood looking into each other's eyes in the dim, beautiful room, something stirred again at her heart which he had awakened there at his first kiss, and which had faded away again under the stern light of reality. It was coming over her again now, as she looked up at him, at his tall, splendid figure, and at the sunshine touching his face.

"Did you mean it?" he asked. "It is

no use discussing anything else until I know that."

"Why do you ask?" she murmured faintly.

A slight smile crossed his face—a smile that had much love in it, much patience, and a little contempt, just a touch of wonder at the weakness of her question.

"Why do I ask?" he said. "What a question! I ask because the words we said to each other that day, and the kiss you gave me, were the most wonderful things on this earth to me, whether they sprang from the impulse of a moment, or from something which is real and sacred; but I must know which, because the whole of our lives depends upon it."

He surveyed her gravely as he stopped speaking, crushing down the longing which seized upon him to draw her up to his heart and hold her tightly there; while she stood painfully tense and still.

Then at last she redeemed herself in his eyes, and rose, for a moment, to that high level on which he had placed her.

"Yes, I did mean it," she said. "Indeed I love you; ah, indeed, indeed!" And with a half-unconscious movement she crept an inch nearer, until she found herself within the shelter of his arm.

And he, upon those words, entered once more into Paradise, and kissed the soft, rosy lips upraised to his own. It was a moment of breathless bliss, but it was a short one, for Marcia Kenyon reentered on the instant, and in spite of his detaining arms, he felt Hyacinth start and tremble away from him.

Marcia smiled no more as she saw the two figures in such close proximity to

each other; she came up to them gravely, and taking Hyacinth's hand, she drew her away.

A rush of anger seized upon Taunton as he observed the action, and saw that the girl made no resistance to it; he nerved himself for a fight, yet what were his weapons? Honour had solemnly asked him not to tell her pitiful story, and until he had obtained her consent to do this, he dared not betray her. His only comfort lay in the thought that, unknown to herself, Honour's footsteps were leading her to cross the path of the man who had cast her aside, and that done Fate might cut the Gordian knot and elucidate the mystery; but his own hands were tied. He could not turn to these two women, and say to the girl in front of him, "It is no longer a question of choice; you cannot marry this man, because he has behaved like a black-guard to another woman," when that other woman had besought him to keep her miserable secret; yet he determined that he would tell what he could, and his face was set like a flint, as Marcia Kenyon sat down and motioned him to do the same.

"Now listen, you two young people," she said, and she leaned forward as she spoke, while in the distance across the dull roar of the city, the sound of music came faintly to them—an intermittent snatch of melody, softened by distance. "This thing must not go on. I have asked you here, Mr. Taunton, to give you an opportunity of bidding Hyacinth good-by, and that opportunity I'm afraid you're using for a very different purpose."

"I am," acknowledged Taunton. "And I do not deny it. This marriage has been made up for Hyacinth by her mother; she is not drawn to this man through her affections, but drawn to me, and I say that her love for me gives me a claim on her life."

Marcia looked at him with a kind of pitying admiration, but he saw that his argument had in no way moved her.

"That is not the way things are managed over here, Mr. Taunton," she said. "Girls in Lady Hyacinth's position are not allowed to follow the ill-regulated impulses of their own foolish hearts; she is very young to marry at all, and it will be quite impossible for her to take the smallest step in your direction without the consent and approval of her parents. Now far from doing either of these things, they have definitely approved of Mr. Quinten, and you must forgive me if I say that I do not think you are acting a noble part, in any sense of the word."

[CONTINUED ON PAGE 29]



"Yes, I did mean it," she said. "Indeed I love you; ah, indeed!"



# Miss Gould's Fashion Page

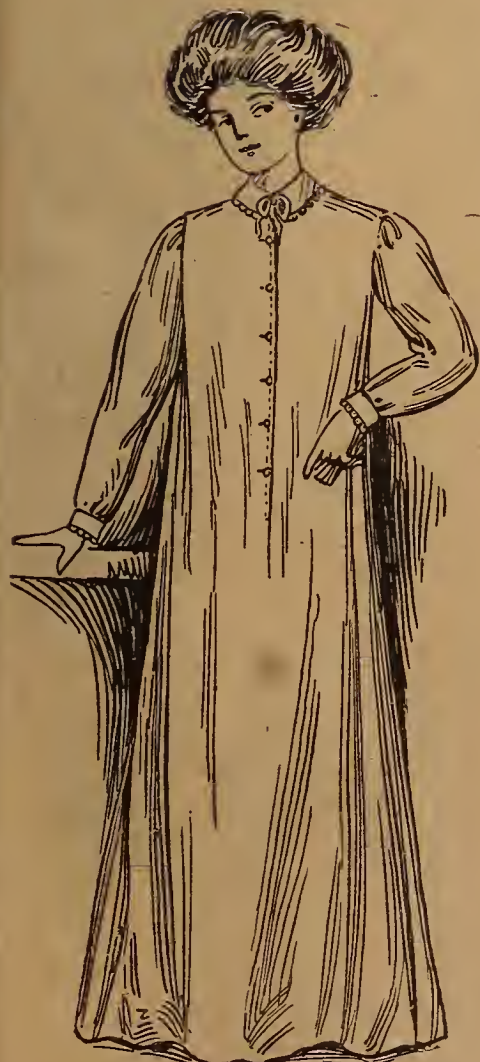


No. 1174—Girl's Surplice Dress

Pattern cut for 6, 8 and 10 year sizes. Quantity of material required for medium size, or 8 years, four and three fourths yards of twenty-seven-inch material, or three and three fourths yards of thirty-six-inch material, with one yard of contrasting material for trimming, and three eighths of a yard of white material for chemise.



Bodkin case of white canvas, decorated with a hand-painted holly design. The case is lined with red satin, and contains three nickel bodkins in graduated sizes. Holly-red ribbons are used to tie the case together.



No. 1253—Sacque Nightgown

Pattern cut for 32, 36 and 40 inch bust measures—small, medium and large. Quantity of material required for medium size, or 36 inch bust, seven and one half yards of twenty-two-inch material, or five and three fourths yards of thirty-six-inch material, with one and one half yards of edging for trimming.



No. 1239—Handkerchief Apron With Ruffle  
Cut in one size.

No. 1240—Pointed Handkerchief Apron With Pocket  
Cut in one size.



No. 1181—Waist With Buttoned Sleeves  
Sizes 32, 34, 36 and 38 inch bust measures.



A blue-and-white coat hanger, small enough to be just right for baby's clothes. This cute little hanger comes in light blue and pink, and is covered with all-over lace in eyelet effect, trimmed with lace and a big bow of baby ribbon.

Miss Gould will be glad to tell any reader of Farm and Fireside where the bodkin case and baby-coat hanger may be purchased, provided a stamped and self-addressed envelope is sent. Write to Miss Gould, Farm and Fireside, 11 East 24th Street, New York City.



No. 1222—Broad-Shouldered Buttoned Waist

Sizes 34, 36, 38 and 40 inch bust measures.

No. 1223—Circular Skirt Buttoned in Front

Sizes 24, 26, 28 and 30 inch waist measures.



No. 1260—Tucked Waist With Round Yoke

Sizes 32, 34, 36 and 38 inch bust measures.

No. 1261—Gored Skirt With Box Plaits

Sizes 22, 24, 26 and 28 inch waist measures.



No. 1251—Misses' Corset Cover With Puffed Sleeves

Sizes 12, 14 and 16 years.

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Our new Winter Catalogue cannot help but be invaluable to the woman who makes her own clothes. We will send it to your address for four cents in stamps. Order patterns and catalogue from the Pattern Department, FARM AND FIRESIDE, 11 East 24th Street, New York City.

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No. 1254—Short Petticoat—Four Gored  
Sizes 22, 24, 26, 28 and 30 inch waist measures.



## OUR YOUNG FOLKS' DEPARTMENT

### Cousin Sally's Letter

DEAR BOYS AND GIRLS:—

I am always a bit sad when it comes time to say good-by to the old year. But, after all, there is something encouraging and inspiring about starting out fresh with a new year—isn't there?—a new year that we can make what we wish it to be. No doubt many of you have made a good many resolutions, but let me say right here that it is far better to make one good resolution and live up to it than to make fifty and not keep any of them.

I have so many good things in store for you, for I want this new year—our first new year together—to be one of the happiest in our lives. And if you will promise not to tell, here is a secret! There is a great big cupboard in my office which is packed to overflowing with prizes for you boys and girls, more expensive and better prizes than we have ever before offered, and which are well worth your winning. The stories in our own page will be more interesting; the prize contests will be more fascinating, and then Cousin Sally is going to publish in our little corner more and more of her boys' and girls' own original work. So you see we are going to have a happy year of work and play together. And can you guess the reason why Cousin Sally has made such elaborate plans for the new year? No? Then I will tell you. It is because you boys and girls have encouraged her by the interest and enthusiasm you have shown ever since she has been connected with this department. Your personal and appreciative letters and your good work have also helped make our department a success. So you deserve more praise for these splendid plans for the coming year than Cousin Sally. I want you to feel that I am personally interested in every one of you and am always glad to help you in any way that I can. Write to me whenever you wish, always remembering that your letters are a great joy to me.

With hearty New-Year greetings,

Lovingly always,

COUSIN SALLY.

### Post-Card Exchange

Nellie Cawthon, age fifteen, R. R. No. 1, Springdale, Arkansas. Odille Ousley, age twelve, R. F. D. No. 5, Macon, Georgia. Frances Kaskil, age sixteen, Hudson, South Dakota. Zora Smith, age fourteen, R. R. No. 1, Luther, Iowa. Stewart Wasson, age thirteen, R. D. No. 2, Watkins, New York. Florence Leedy, age thirteen, R. R. No. 2, Pierceton, Indiana. Violet E. J. Malcolm, age twelve, R. F. D. No. 12, Box 20, Altona, Illinois. Kathryn E. Lynch, age ten, Stockbridge, Massachusetts. Nellie White, age fourteen, Lynchburg, Missouri. Mary O'Connor, age ten, 1725 E. Mallon Ave., Spokane, Washington. Lottie Hall, age fourteen, R. F. D. No. 1, Box 36, Carthage, Missouri.

### Special Prize Contest

THIS month our prizes are for original drawings on any of the following subjects: "A Winter Scene," "The Old Gate," "A Doll's Tea Party." The drawings may be in any medium you may choose—pencil, ink or color. For the six best drawings on any of these subjects sent in by boys and girls under seventeen years of age, we will give prizes as follows:

A book, a game, a beaded purse, a box of writing paper, a set of doll's furniture, and a box of paints. We will also give charming supplementary prizes of pictures. Be sure to write your name, age and address on your drawings. Do not roll them, but send them flat. All drawings should be sent in by January 20th, and should be addressed to Cousin Sally, care FARM AND FIRESIDE, 11 East 24th Street, New York City.



By L. D. Crossman, Age Sixteen, Vineland, New Jersey. Prize: Box of Paints.



### Margaret's Dream

By Christine Babcock



MARGARET lay stretched before the fire in her favorite attitude. She loved to watch the flames reaching upward through the chimney; to watch the little blue flames coiling afterward in and out of the logs, now disappearing, now darting forth again; and after the fire had died out, to watch the glowing embers and to find all kinds of pictures left by the coals.

To-night the fire was almost dead; only a few little blue flames could be seen at play among the great charred logs. It was very interesting to watch these little fellows darting here and there; and what was more interesting, each little flame seemed to have a body and face of its own.

Suddenly she noticed one of the flames disappear down a glowing flight of stairs. Curious to see where he was going, she leaned far forward, and thus attracted the attention of the other playfellows. These stood staring at her until a stately old ember came walking up. The flames immediately stepped aside and fell on one knee in obeisance. "That must be their king," thought Margaret, and she was not mistaken. He was coming toward her in a pleasant manner and smiling a welcome.

"All the visitors are welcome  
To my happy kingdom here.  
All that wish to come may enter;  
In my court they'll have no fear,"

sang the old man, holding out his hand to Margaret.

"Right down this flight of embers,  
To my palace that's below,  
Where my subjects are all ready  
The seeds of Truth to sow,"

he continued, leading her down the stairs. Arriving in the courtroom, he led her across to his throne at the other end of the hall, which was brilliantly lighted with all-sized embers. He placed her in the seat of honor, on his right hand, and called his court together.

"Of my subjects, great and small,  
Love is needed most of all,"

said the king.

A beautiful little fairy glided to the front of the throne and knelt in obedience to the call. The king addressed her thus:

"Rise, little thought, and hasten  
away  
To scatter your seeds of Love  
to-day."

Love glided away as swiftly  
and quietly as she had come.

"Next of all my subjects dear,  
Unselfishness is wanted here,"

sang the king.

Immediately a number of little blue flames came forward. Arranging themselves in such a way as to form the word "unselfishness," they knelt of one accord. The king ordered them to rise, and said:

"You little thoughts know what  
to do  
Just follow Love, so gentle and  
true."

After that, in order, came Obedience, Kindness, Gentleness, Forgiveness, Happiness, Health and Peace, until all his subjects had been called and dismissed, and the courtroom was empty.

"Why do you send these 'little thoughts,' as you call them, out into the world, kind king?" asked Margaret.

"My little thoughts have work to do,  
Some loving work each day;  
They may indeed touch some lone heart  
Or one who's gone astray,  
And give them all a strengthening hand  
To help along the way."

Suddenly the door opened, and Love appeared. "I have come back to take little Margaret with me," she said, smiling and holding out her hand. "I can leave her at her home when I pass it on my journey." She came toward the throne, took Margaret's hand, and led her to the door. There Margaret turned back. "Good-by, dear king," she called, waving her hand and smiling. The king looked at her lovingly, and said:

"Dear child, I am no king;  
No world has e'er seen me  
Sitting upon a throne,  
Ruling in majesty.  
I am only the ruler  
Of my thoughts with which each day  
I try to help some struggling heart  
Along the rugged way.  
Just the subject true and loyal  
Of the great and only King  
To whom with grateful hearts  
We our humble offerings bring."

With these words the king began to grow more and more indistinct, and finally faded away altogether. Margaret turned around. How familiar it all looked! There were the old-fashioned andirons, fender and fire set; there was her old Tabby getting as close to the fire as she could.

"Margaret, Margaret," called a very familiar voice, "what time do you suppose it is, you little sleepy head?"

Margaret opened her eyes. Had it all been a dream, after all? Her father was speaking to her now. "Come, little girl, time for bed. Just think of it, half-past ten, and not asleep yet. That is," he added, "not where you ought to be."

Margaret jumped up in her daddy's arms and he carried her into the other room, where her mother sat sewing.

"Here's our naughty little girlie," spoke father; "she's been fast asleep before the fireplace."

The goblins will surely catch her if she doesn't go to bed this instant, won't they?"

"Please don't speak about horrid old goblins, daddy," said sleepy little Margaret. "for I'll surely dream about them all night. I would much rather have the fairies catch me and take me off to fairyland."

That night, after Margaret had said her prayers, she snuggled her little head into the pillows and whispered:

"Just the subject true and loyal  
Of the great and only King."

"And," she added softly to herself, "I, too, will be

"Only the ruler  
Of my thoughts with which  
each day  
I'll try to help some struggling  
heart  
Along the rugged way."



By Laura Hutchings, Age Fifteen, Durham, North Carolina. Prize: Box of Paints.

### The Letter Box

DEAR COUSIN SALLY:—I want to be one of your cousins, too. I live in New York State about two miles from Albany. I am twelve years old.

I should think you would feel queer living up so high. I have a room of my own, and to me it is the dearest little room in the whole world. From my window I can look out on the fields, surrounded by lordly pines. I can see the sun rise in the east and watch the clouds roll by. But prettiest of all is the evening star that peeps right in my window. I love Nature and delight in rambles in the woods.

In our barn we have a large hayloft which is not in use. In the summer time I have my study there. I have a soap box with shelves for a curiosity cabinet, and in them I stow all of the curiosities that I find in my walks. I have found robins' nests that the wind had blown to the ground. I have acorns by the dozens and different other things. My furniture is rather scant. I have two rocking chairs and one straight-back chair. I use a berry crate for a table, and decorate the walls with pictures which I clip from magazines.

I could tell you so many things that I do every day, but I don't want to take up too much of your valuable time reading this. I would like to exchange post cards with the cousins.

With much love to you,

Your loving cousin,

LORETTA REILLY,

R. F. D., West Albany, New York.

DEAR COUSIN SALLY:—I live in the country, three and one half miles from the old Santa Fe Trail. In 1906 the Daughters of the Revolution traced the old trail from a ranch to Council Grove, Kansas. The main street in Council Grove is now supposed to be the Santa Fe Trail. The old pioneer store is still in Council Grove, where the settlers and emigrants used to buy their supplies in the early days of migration to Kansas.

Council Grove is so called because the Indians used to hold council there. Two miles south of it there is a high pile of rocks on a hill, which are supposed to have been placed there by the Indians as a guide and landmark.

Wishing you and all of the cousins a happy New Year, I am

Your affectionate cousin,

MARY RIOTH,

Wilsey, Kansas.

DEAR COUSIN SALLY:—I am a little Florida girl ten years old. I live way down South seventeen miles east of Tampa. I go to school every day and am in the fifth grade. I have fine times riding the mules and driving the cow to pasture. I love to go bathing and hunting for oysters. I would love to have some of the cousins visit me some time; we'd have jolly times, I know.

Your cousin,

CARRIE GARNER,

Bloomington, Florida.

DEAR COUSIN SALLY:—I received the book you sent me, and was very glad to get it. It is very interesting.

I have never taken any drawing lessons outside of school, though I have studied and worked more at drawing outside of school than in. At school my drawing lessons were confined entirely to pencil work, while outside of school I have worked with pencil, black and colored inks, and water colors.

Thanking you for the book, I remain

Sincerely your cousin,

ALLEN PRATT,

Peak, Oregon.



By Allen Pratt, Age Fourteen, Peak, Oregon. Prize: Book.





## Our Girls at Home



### Your Point of View

**G**IRLS, have you ever thought how much your point of view has to do with your happiness or wretchedness? We are really responsible ourselves for whether we are known as a cheery, jolly sort of a girl, or whether our friends associate us with gloominess and discouragement.

The part that our own point of view plays in our lives has been brought to my mind lately by two girls I know.

I happened to drop in upon each of them one stormy, dark day, a week or so ago, and let me tell you how I found them. The first girl lives in a big house on Riverside Drive, New York, and she has a room overlooking the Hudson which to me seems simply ideal; and why shouldn't it be, for it was just planned to make this one particular girl happy.

Well, when I was ushered up to her room, there she sat in the most luxurious chair imaginable, the perfect picture of woe. The rain had prevented her going automobiling, and because of this, as she told me herself, everything was wrong. She did not care to read; she wanted to go out, and she just hated to have her plans interrupted. I mildly suggested that if I had a room like hers I would welcome a rainy day. But no, there was nothing about her room that suited her. She was tired of her books and she hated staying indoors, anyway, it always made her feel sick and gloomy. I tried my best to talk her into another mood, but I failed, and not only did I leave behind me a very unhappy young girl with not one real excuse for her unhappiness, but I took away with me a sense of depression that I found hard to throw off.

Now for my other girl and her point of view. She is a young artist, and I tell you she has struggles of her own to make ends meet. She takes care of herself and has one big room in a studio building which serves for her workshop, bedroom and kitchenette. Well, I found her on this same day lying on a couch looking very ill. But you ought to have heard the cheery voice with which she greeted me and seen her happy smile when she told me about the three pink roses which were standing in a vase on a little table drawn close to the couch. It seemed that she had been home from her office ill for two weeks, and yet what did she talk of; not her suffering and lonesomeness, no indeed, but the joy she had taken in those three pink roses. How she had watched the buds unfold and how she loved the velvety softness of the rose-colored petals, and what it had meant to feel that in all this big, rushing world some one had stopped long enough to think of her. Then she went on to tell me how kind they had been to her at her office since she had been ill, how the girl who wrote the articles she illustrated had come in every night on her way home and fixed some dainty little thing for her supper, and how the cleaning woman in the building had tidied up her room, and how, after all, if one just sets to work about it, blessings can be discovered in the most unexpected places.

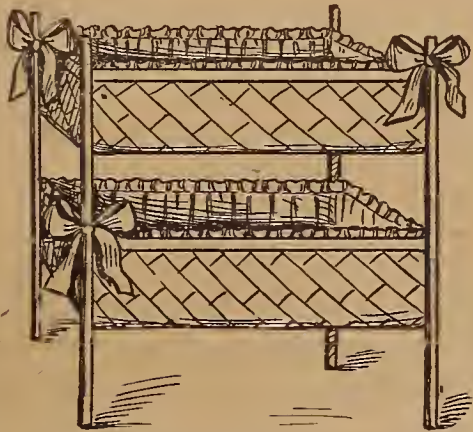
Well, I stayed just twice as long as I had intended talking to my sick girl, and the lesson of her cheerfulness is one I shall not soon forget.

In both cases it was just the point of view that made one girl wretched and the other girl contented. Let us be careful, girls, of our own point of view, for it is something for which we ourselves are alone responsible. G. M. G.

### Daintiness a Part of Girlhood

**N**O MATTER how crude a girl's surroundings may be, if she wants to bring daintiness to them she can do so. The best plan is to begin in one's own dress. Even the poorest girl can have inexpensive yet effective and charming dresses if she has a desire for them. Cheap materials showing very unusual and artistic designs can now be purchased in any of the big shops, and they really make up most charmingly and effectively. After all, it is not always the expensive things which look the most attractive. A gown can be made of very cheap material, yet look most distinctive if its keynote is simplicity and girlishness.

Charm and beauty, just as much as we can get into our lives, need never be considered affectation. So few of us realize that beauty is not a mere luxury, but one of the great moral forces of life. A vase of flowers on the breakfast table, a rose at one's belt, a good picture on the wall of one's bedroom, and dainty ruffled curtains at the window of a girl's room—these and any other forms of girlish daintiness are not only a part of a girl's girlhood, but they are a part of her goodness and her sweetness, her purity, her charms, and they testify of all of these things in her nature.



Novel Music Holder Made of Two Large Market Baskets

**A** MUSIC cabinet is something that every girl who owns a piano should have. Nothing gives the parlor a more disorderly appearance than sheets of music carelessly strewn over the top of the piano or on the table. Of course it isn't every one who can afford a music cabinet. The music holder pictured on this page is one that any girl can make. It is really very good looking and it is made of two large market baskets which can be purchased at any grocery store for the small sum of five cents each.

Remove the handles and by means of screws fasten the baskets very securely to four broom handles. Then give the whole thing two or three coats of good white paint.

Now for the lining. Silkoline is a good material to use in pale pink or blue. Shirr it very full, making a dainty frill to extend about half an inch over the sides of the baskets. Trim the legs of the holder at the top with two or three large bows of ribbon in the same shade as the lining.

If preferred, the holder may be used in your own room as a receptacle for magazines and papers. Be very careful to see, however, that the lining and ribbon bows harmonize with the color note of your room.

### Thoughts for Girls

Your mother is your best friend. Tell the pleasantest things you know when at meals.

Do not expect your brother to be as dainty as a girl.

Introduce every new acquaintance to your mother as soon as possible.

Most fathers are inclined to overindulge their daughters. Make it impossible for your father to spoil you by fully returning his affection and devotion.

Do not quarrel with your brother; do not preach at him and do not coddle him. Make him your friend, and do not expect him to be your servant, nor let him expect you to be his.

The editor will be very glad to tell any of the readers of Farm and Fireside where the hand-painted cardboard hatpin holder pictured on this page may be purchased, provided a stamped and self-addressed envelope is enclosed in each letter. Address Editor "Our Girls at Home," care Farm and Fireside, 11 East 24th Street, New York City.

### The Cooking Club

By Hilda Richmond

**A**N ONLOOKER at the little spread given on "Gentlemen's Night" at an informal little meeting of the cooking club in a country community sighed to think all country girls do not live up to their privileges. The high-sounding title, "Gentlemen's Night," meant nothing more than that the fifteen girls who usually met in the afternoon had each invited a brother or friend to share in the good time, and thirty young people sat down to five little tables beautifully arranged, and on them spread a most delicious and dainty supper. There was a prize of a pretty cup and saucer to the girl having the prettiest table, another cup and saucer to the girl with the best cake, and another to the girl with the best sandwiches, since each girl could not have a table and furnish a cake and make sandwiches in so small a gathering. There were "speeches" and music and, above all, lots of laughter and fun, and the gathering broke up at ten.

One set of girls who were persuaded to try cooking for fun gave up in despair because there was "nothing to cook" in the country. Every time they opened a cook book they saw nothing but recipes for oysters and shrimps and lobsters and game and French peas and ice and mixtures calling for articles unknown outside the large hotels, so they refused to try cooking at all, except what they had to do to help along with the work of the home. In vain the mothers tried to point out that the fine young chickens and ducks were more delicious than any game or shell fish, and that garden peas were better than canned ones, but the girls called everything on the farm "common," and said there was no fun in cooking. But there is fun in cooking, and the country abounds with good things to cook.

If the club is small, each girl may take a certain dish previously prepared to the meeting, or the food may be carried in a raw state to the meeting place and then cooked. Nothing could be jollier than eight or ten girls talking and laughing and cooking together, no matter if at first the results are far from perfect. Later on guests may be asked occasionally.

It may sound strange to say a cooking club is one of the most enjoyable pastimes a girl can indulge in, but just try it and see.



### Reliable Dress-goods

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## Grand Prize Contest

An Unlimited Number of Prizes will be distributed among those who make a copy of this picture. If our Art Director decides that your copy is even 40 per cent. as good as the original, it will win an illustrated magazine FREE OF CHARGE FOR SIX MONTHS, showing the work of the most prominent artists of the country.

No Money Required to Win a Prize—It will not cost you a cent to enter this contest. Sit right down now and copy this picture with either pencil or pen and ink. See how well you can do it. If you are a prize winner it will prove you have talent for drawing.

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# What 1909 Promises To FARM AND FIRESIDE Readers

First of all, we want to wish you who are members of our big family of readers, and also you who are not, but who are going to be, a very happy and prosperous New Year. We want to tell you also how we are going to help make 1909 most happy and prosperous for you by making FARM AND FIRESIDE the most helpful, most useful and most interesting farm paper in this country.

## What We Are Doing Now

We are putting an immense lot of thought and effort on FARM AND FIRESIDE these days—have been doing it for a long while. We are spending hundreds of dollars more on every number than we ever spent before. We are getting the best brains and experience in the whole farm field to write for FARM AND FIRESIDE regularly. And we are adding new magazine features of vital interest to the progressive farmers of America. But this is only a start. During 1909 we shall push ahead harder than ever, getting the best things for our readers that money can buy, because we believe the up-to-date farmers of America want only the best.

## A Word About the Price

We have been giving too much for the money and we can't afford to do it any longer. So with this number, the price of FARM AND FIRESIDE is increased to 35 cents a year. This has been forced upon us, and we believe that every one of our big family of readers will say that the FARM AND FIRESIDE of to-day, with its twenty-four numbers, is worth many times 35 cents. But for a few days more you still have a chance to subscribe or renew your subscription at the old price. See our offers on page 28, and act promptly.

## Splendid Articles for Farmers

We are starting off the New Year with a series of articles of vital importance to every farmer in America. The first appears in this number and is entitled "Investment of Farm Profits." Be sure to read it. The others will appear very soon and will be fully as interesting. They will be entitled "Talks to Farmers on Local Investments" and "Talks to Farmers on Conservative General Investments," each by an authority on his subject. They will take up in a most comprehensive and intelligent way the methods by which our readers can invest their money on their own farms and in other ways, with the greatest safety and a fair profit. Another of these articles will be an interesting illustrated interview with Milton Whitney of the United States Department of Agriculture, on Soil Investigation, by Eugene Wood.

## President Roosevelt's Commission

to investigate and report on the condition of American farmers is sure to do a wonderful work which will concern the welfare and home of every farmer in this country. We intend to keep our readers in **unusually close and intimate touch** with the problems and their solutions, which are being worked out by this commission. The results are bound to work for the betterment and increased prosperity of every one of our readers.

## Negro Versus Italian Labor

In an article on this subject soon we shall give the results of some experiments with Negro and Italian labor showing how they compare with each other and with other labor, and the efficiency of each. The results will probably surprise you—they are sure to interest you.

## Farmers and Insurance

Whether you now carry life or fire insurance or not you will eagerly read the remarkable articles on Insurance for Farmers that we shall soon publish. We are going to tell you the **truth** about insurance. Insurance men have had their say elsewhere. Now we are going to give the **farmer's** side, and a **man who knows** is going to tell it. No long-drawn-out theories, but downright **facts** which will probably save you a lot of money. Be on the lookout for them.

## The Greatest Farm Paper

in every way—that is what FARM AND FIRESIDE always has been and will be more than ever during 1909. The departments of FARM AND FIRESIDE now cover every side of the farm and farm-home activity. Even the children are not neglected, for we are making FARM AND FIRESIDE a paper for the **whole family**. And the fashion and household pages for 1909, edited by the best authorities on matters concerning fashions and the home, are sure to be the most helpful and interesting in any farm paper, and unsurpassed by those of any magazine, no matter what its price. These pages alone will be worth many times the subscription price of FARM AND FIRESIDE.

## Three More Beautiful Pictures

We have reserved to the last the good news about our extra art supplements. As a New-Year's surprise we have arranged for two more of these beautiful paintings, making three altogether that you will get with FARM AND FIRESIDE **this winter**. The next one will be a full-page portrait of Lincoln in six colors, which will be given with our January 25th number. The others will be a full-page picture of Washington and a wonderful new full-page picture of Jesus Christ, which was exhibited at the Royal Academy, London, last spring, and which has never before been reproduced in this country except by our Company. These are perfectly beautiful pictures.

## Our Last Word

If we could tell you **right here** all the good things and new things our big family will get this year, you would agree with us that no other farm paper in this country, no matter what its price, is giving its readers as much that is helpful, interesting and valuable. All we ask is that you let us **prove** it to you by staying with us in the great FARM AND FIRESIDE family of nearly three million readers. We want you, so please see that your subscription is paid in advance. Do it **now**.

**FARM AND FIRESIDE, Springfield, Ohio**



# Sunday Reading



## New-Year Resolutions

**T**HE beginning of the New Year and resolutions! It seems as natural to associate the New Year with the making of resolutions as it does to connect good old Kris Kringle with the Christmas time. But what of these New-Year resolutions of ours—for we are sure to make them as regularly as January 1st comes around. Are they always worth the making? You know that when a lake feeds ten or twenty little streams there is not enough water left to form one good, strong river. Each of the streamlets is useless, whereas if this water had all gone in one body, it would have made a river that would be a giant of power in the country through which it flowed.

It is that way with resolutions. We waste our energy planning to do this and that and the other small thing. Would it not be better for each of us to make the one resolution that will be of the greatest help to us and try to keep it before us all through this coming year?

I think that every one has the feeling that *some time* he will put everything else aside and become thoroughly acquainted with himself. There is no better time to do so than the beginning of a new year. We know too little of our real selves in these busy, hurrying days, and perhaps we would be a little surprised, when we came to catalogue our motives and ambitions, to find how paltry they were, after all. These early January days would be a very good time to have a mental and spiritual housecleaning. Who knows how many noble aims and purposes have been lying dormant all this time, and the little heart-to-heart talk that we will have with ourselves may warm them into activity.

Let us resolve, then, to put all our strength and energy during this coming year into doing what we believe is God's will. And this will be the mighty river of good that includes the smaller streamlets of helpfulness, kindness and charity to others and the uplifting of our own lives, as well.

B. V. A.

## Christ Every Day

**T**HE periodical piety that goes by the calendar, and only serves the Lord Jesus at set times and places, is of very little value; it is only a perennial piety that possesses both peace and power. He is the only healthy Christian who runs his Christianity through all of the routine of his every-day experiences. Some people keep their religion as they do their umbrellas for stormy weather, and hope to have it within easy reach if a dangerous sickness overtakes them. Others, and quite too many, reserve their piety for the Sabbath and the sanctuary, and on Monday they fold it up and lay it away with their Sunday clothes. A healthy, cheerful, working religion cannot be maintained on Sabbaths and songs and sacraments; every day has got to be the "Lord's day" if we expect to make any real headway heavenward.

You may have Christ every day if you wish. Just as surely as Christ met His disciples on that early morn by the strand of Galilee will He come to us. Just as surely now as then will those who love Him most be the quickest to recognize Him and the first to hasten to Him.

There is no journey of life but has its clouded days; and there will probably come to many of my readers days in which the eyes will be so blinded with tears that it will not be easy to see their way or to spell out God's promises. Days that have bright sunrises, followed by sudden thunder claps and bursts of unexpected sorrows, are the ones that test our graces severely.

A new year is upon us with new duties, new conflicts, new trials and new opportunities. Start on the journey with Jesus—to walk with Him, to work for Him, and to win souls to Him. A happy year will it be to those who through every path of trial, or up every hill of difficulty or over sunny height, march on in closest fellowship with the Master, and who determine, that come what may, they will have *Christ every day*.—Extracts from "Help and Good Cheer," by Rev. Theodore L. Cuyler, D.D.



Saint John and the Lamb—By Murillo

Murillo, the greatest ecclesiastical painter of Spain, was very poor in his boyhood. He became famous through his painting eleven large pictures of remarkable power and beauty for the convent of San Francisco in Seville, which, strangely enough, was due to his poverty, as the friars of this convent had no money to pay any well-known artist. This painting is considered one of his best, and hangs in the National Gallery in London.



# Things Worth Knowing

## Building a Skyscraper

IF SOME one told you that all the skyscrapers in our large cities stood on "legs" you would probably be inclined to disbelieve it. When we pass a building that is just going up we generally look with disgust at the unsightly accumulation of scattered chains, timbers, steel beams, derricks and puffing engines. It all means nothing to the average on-looker. But if, when the building is completed, he could take it up in his hands and examine it carefully, what a revelation it would be to see that the building stood on legs!

Concrete piles have been long in use, although it is generally believed that it is a new idea. The majority of the structures stand upon piles of wood, steel or concrete. As many as a hundred of them are used to one building. To drive one of these piles into the ground is not such an easy matter as it may seem. One may think that all the workmen have to do is to make a long pole of concrete and drive it into the soil by the same method used with the old wooden stick. This is not so. If all soils were alike and all reliable, it might be a simple matter; but nowadays buildings are constructed upon sand, and sometimes even quicksand, and then again upon veritable marshes or cinder-filled land.

However, the builders of concrete piles have found ways of overcoming these difficulties. One method which has proved successful embraces the use of what is called a driving form—which is practically a hollow steel pile, with a point of cast iron. This is driven into the ground, and thus opens the way for a filling of concrete. As soon as the concrete is put in, the outer tube is pulled out again, leaving the pile of concrete and its cast-iron point in place.

There are several other methods in use, all of which seem very practical.

The old wooden piles are not used as much as they have been—in fact, they are almost a thing of the past. Wooden piles rot quickly and are easy prey of water insects that eat holes—thousands and millions of them—in timbers and utterly honeycomb them. But the concrete pile, put down according to the newest methods, overcomes all of these difficulties and is absolutely permanent.

## New Use for Automobiles

A CERTAIN YOUNG man in one of our big cities surprised his friends and neighbors the other day by showing them a new and original way of using an automobile. Perhaps his ingenious idea may be of interest to our many readers.

All he does is to attach a belt to one of the rear wheels, and his car is transformed into a piece of farm machinery of unique type. He attached the belt to a fodder cutter, and the effort of two of the farm hands was required to keep the machine fed with material while the big motor car did its work. The belt was then affixed to a corn grinder and other farm machinery where power was needed, and his friends were dumb-founded and silent when they saw the way it sent the wheels flying and the speed with which it turned out the completed material. The work went along without a hitch. The attachment of the belt took but a few minutes and the wheels were buzzing a few seconds after the belt was in place. All the men had to do was to keep the machine fed with material. It is said that there is no possibility of damaging the machine, as it is under a far greater strain when driving over rough roads and up steep hills than when used as a farm implement.

## A New Fertilizer

AT NIAGARA FALLS, Ontario, a large factory is being erected to manufacture a new fertilizer, calcium cyanide or lime nitrogen, consisting of coke, lime and twenty per cent nitrogen. When this compound sinks into the soil it decomposes, and its rich ingredients are absorbed by the roots of plants. It has been employed for three years in Europe in fertilizing cereal and other crops, the yield in some instances having been doubled by its use.

## Recovery From the Panic

IN THE so-called financial panic of a year ago, thirteen banks owing fifty thousand depositors ninety million dollars failed or suspended. All these banks except one, that had but few depositors, have resumed payment, so that the direct loss of the public has been practically nothing.

## Enforcing Pure-Food Laws

EVERY week the food inspectors of New York City condemn and destroy enough food to supply a fair-sized village; that is, it would be enough if it were fit to eat. During the year 1906 the inspectors destroyed 1,349,067 pounds of meat; 446,812 pounds of poultry and game; 334,748 pounds of fish; 2,449,253 pounds of vegetables; 13,553,879 pounds of fruit and more than a ton of confectionery. Large quantities of doubtful eggs, unsanitary milk and artificially colored or adulterated provisions of various kinds are seized on the docks or in the stores and markets. During the last six months 218,571 pounds of groceries and canned goods have been condemned as impure and unwholesome.

## Tigers in India

IN BRITISH India every year about eight hundred and fifty people are killed by tigers. The man-eating tiger is an old beast that finds the unarmed native an easier prey than deer, cattle or buffalo. A single tiger in 1869 killed one hundred and twenty-seven people. Another caused thirteen villages to be abandoned. The Ambadhona tigress, killed in January, 1905, had a record of forty-eight deaths in the Sumbulpur district of the central provinces. Yet of all the tigers killed each year, according to the bounty reports, from thirteen hundred to fifteen hundred, probably but one hundred and forty are guilty of manslaughter. The government pays a bounty of \$13.20 for each tiger killed.

Poison snakes in the same region kill from sixteen thousand to twenty-three thousand annually out of a population of two hundred and forty million. Even the comparatively peaceable and now rigorously protected elephant causes great damage to crops and granaries and is held responsible for from twenty-five to thirty deaths a year. As most tigers are not disposed to attack man, and on the other hand destroy many of the animals that ravage the crops, the natives do not regard the tiger altogether with disfavor.

## Picture Post Cards

GERMANY is the world's greatest producer of picture post cards, having exported five hundred million during the first six months of 1908 and six hundred and fifty million during the corresponding period in 1907. The United States is her best customer, with England second. Asia and Australia are also great patrons of this form of popular art.

## Paul Revere, Money Printer

EVERY one knows Longfellow's stirring ballad of "Paul Revere's Ride," but the important part that the hero played in the daily life of his period is not so well known. Besides being "the messenger of the Revolution," intrusted with despatches of state, Revere was something of a silversmith, a pen-and-ink draftsman and an engraver of letters and designs on silverware and of scenes on copper plates. He was also the first printer of American currency.

On May 3, 1775, the Provincial Congress ordered an issue of Colony notes for one hundred thousand pounds, or about half a million dollars, and the execution of the order was left to Paul Revere. He engraved four copper plates, and rigged up a press on which he printed the notes in fourteen thousand five hundred impressions, receiving just fifty pounds, or about two hundred and fifty dollars, for his work.

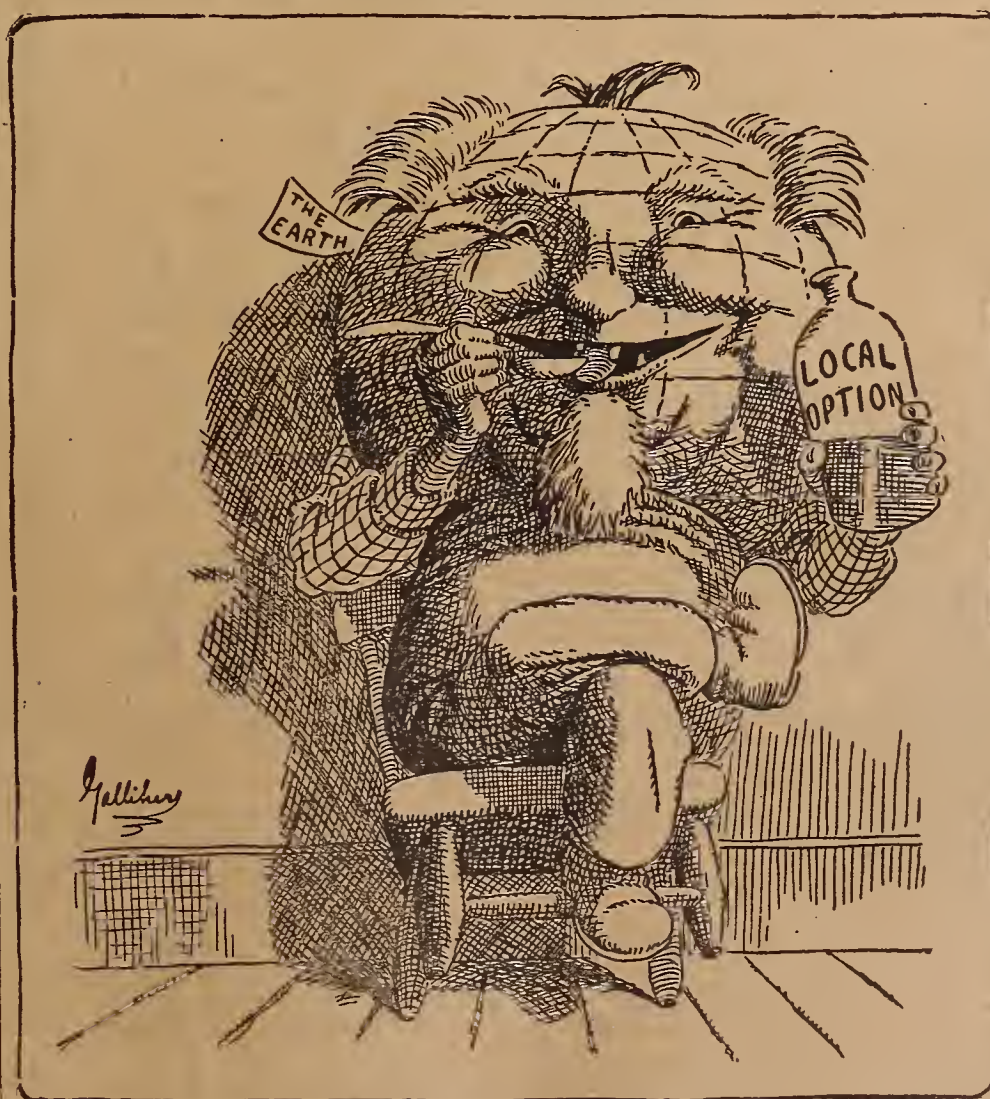
## Papering the World

SO MANY books, newspapers and magazines are printed, so many packages are wrapped, so many letters and circulars are mailed, so many bills are posted and so many walls are decorated in this country, that paper worth nearly one hundred and ninety million dollars is manufactured in a single year in the United States alone. Besides great quantities of rags, straw, old paper and manila stock, over three million cords of wood are turned into the pulp from which this great supply of paper is made.

Of course we use more paper than any other country. Have you ever seen the big, solid, cylindrical rolls of paper that are wheeled into newspaper printing plants? According to statistics collected by the "Scientific American," the paper used annually in this country would make a great solid roll like these, weighing 2,730,000 tons, 830 feet high and 377 feet thick. Germany's paper roll weighs 937,000 tons, is 588 feet high and 267 feet thick. That of England weighs 573,000 tons, is 495 feet high and 225 feet thick. That of France weighs 419,000 tons, is 445 feet high and 202 feet thick. Austria's annual roll weighs 346,000 tons, is 418 feet high and 190 feet thick; while Italy's weighs 265,000 tons, is 379 feet high and 172 feet thick.

The capital invested in the production of the world's paper supply is about six billion dollars. Although great quantities of wood are used for paper pulp, less than three per cent of all the wood cut goes into the paper makers' vats.

## Is the World Growing Better?



"I'm beginning to feel like a new planet"



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This season we will pay \$100,000 to our workers for WOMAN'S HOME COMPANION and FARM AND FIRESIDE. Our guaranteed income plan is proving a great success, and we want a live representative in every community. For prizes alone \$25,000 has been set apart, and there are good opportunities for ambitious men and women to make big money. Even those who give part of their time are delighted with the results, while some good hustlers have netted over \$2,000 in the last twelve months. Would you like to know how they did it? Address

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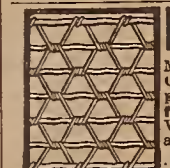
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## Your 1909 Calendar

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This wonderful calendar is the work of Balfour Ker, one of America's greatest painters.

It is the most beautiful calendar of the year. Never before has a masterpiece of such tender sentiment and family love been produced. This small and crude reproduction can hardly give you an idea of the power of this great painting which appears on the front of the calendar. It is truly a work of art.

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### To All Our Friends

who are not now subscribers, and to those who have not yet renewed their subscription, the beautiful "Home, Sweet Home" calendar will be sent absolutely without additional cost if you accept one of the offers below before January 25th. This will be a New-Year's gift to you as a reward for subscribing promptly. It cost us hundreds of dollars merely to print the superb "Home, Sweet Home" picture—but you can get the entire calendar without cost until January 25th only.

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Be sure to ask for the "Home, Sweet Home" calendar when you send in your subscription.



# The Soul of Honour

[CONTINUED FROM PAGE 22]

word, by working on this poor child's affections. She is very romantic, as we have all been in our day; and later on she will be the first to smile at this foolish little episode of the past. I am very sorry for you both; it is extremely unfortunate that it should have happened, but the whole affair is very plain and simple, and I can hardly understand really, Mr. Taunton, how an honorable man like you can see the slightest ground for hope. As we all know, you called on Lady Windermere, and she would not receive you. That seems a hard thing to you, no doubt, but after all, why should she? Her daughter is engaged to Mr. Quinten; you cannot call it exactly a worldly marriage, for we understand that Mr. Quinten is far from rich; in fact, he has told the Windermers very plainly that his whole future depends on his being able to go to his cousin, Lord Vannister, and tell him that he's going to make a satisfactory marriage."

"What is a satisfactory marriage?" interrupted Taunton hoarsely. "You look at things so differently from me."

"Of course we do," said Marcia, "and we are not ashamed of it. A satisfactory marriage is where the position is equal on both sides, which is so in this case; and without doubt Lord Vannister will make satisfactory settlements."

"And if he doesn't?" asked Taunton.

"Suppose he doesn't," said Marcia. "Then in that case there would undoubtedly be a hitch, and you would then be able to put your proposals forward with some chance of success; but believe me, that is your only chance, and I'm afraid it is hardly worth counting upon."

"It is not worth counting upon at all," said Taunton, and he rose to his feet and stood in front of Hyacinth.

They were only a foot apart, but the sense of his presence was so strong upon her that she felt as though he had taken her hands in his again; in fact, she put out her own hand to meet his, but he did not touch it.

"If Lady Hyacinth cannot choose here and now, choosing the man she loves best, owning the mistake she made in giving herself to another and abiding by the consequences, then she is not the woman I thought her."

Hyacinth shivered and started, and gave a little cry of surprise and distress; but he went on, gravely stern.

"You can hardly expect me, Mrs. Kenyon, to say anything else, or suppose that a man such as I am—or any man, in fact, worthy the name—will stand by while the question of money is weighed in the balance. A thousand more settlement and you have her; a thousand less, and you lose her. Never. I would rather leave her here and now, forever."

He turned with a reckless, impatient gesture, and Hyacinth rose, too—rose trembling and silent as if with the intention of creeping up to him; but Marcia Kenyon drew her back again, and held her tightly by the wrist.

"That is your own lookout, Mr. Taunton," she said. "Mr. Quinten was your friend; it is through him that you ever met Hyacinth."

Taunton looked at her sadly. "That is true," he said. "Out of all you have said, Mrs. Kenyon, that is your truest word, and what I'm going to say to you now is true also; he was my friend; I knew his faults, or thought I did, but there was friendship between us. But I have since found out that the man is a sham, living on borrowed money, boasting of his prospects which depend entirely on the will of a man who despises him; his very entertaining, the very dinners to which he has invited the Windermers, have been paid for with my money. Further than this, I know him to be a blackguard."

The words were out now, and he knew, as he spoke them, that he had gone too far. Hyacinth gave a little cry as he mentioned the entertainments he had paid for, but this time it was a cry of anger, as of one who resents an insult. She looked at him, quivering, with outraged eyes, and a look of aversion that was at variance with the softness of her face, sprang into them. But it was Marcia who answered him.

"What proofs can you give of your words?" she asked in her haughty tone. "None—at present," he replied. "But what I say is true."

"In any case it should not have been said," said Marcia. "For it is totally unsupported by proof, and, therefore, to my eyes—and I think to Hyacinth's, also—it is nothing but a slander. The fact remains that you never found out all this until you were good enough to set your affections upon this girl, who was his

promised wife, so I hardly think that what you say is worth answering." She turned to Hyacinth and took her hand. "Perhaps this will make it easier for you, dear, to say good-by, here and now."

Hyacinth looked toward him, agitated and hesitating. "Won't you take it back?" she asked, breathing quickly. "Won't you say it is not true—these horrible things you insinuate about Marcus. You have been led into saying them, but we do not want to fight with those kind of weapons."

His face hardened, and suddenly he felt that he could not soften what he had said; he could not retract or explain; it must stand.

"What I have stated is true," he said doggedly, and added no other word.

Her face grew hard, and she turned deliberately away from him, and half clung to the woman near her.

"Let us go, Marcia," she said faintly.

At that he sprang forward, and it seemed as though his very soul escaped him in a passionate, yearning cry.

"Hyacinth—my beloved! Not good-by." He dashed his hand across his eyes, which were clouding with a mist of tears, and when he looked up he was alone.

## CHAPTER VII.

HONOUR watched the trees and houses flying past her with grave, half-unseeing eyes, which yet took in with a fullness of dreamy contentment the fact that what she was looking at was strange and new.

Oh, the unspeakable relief of leaving London, where she had suffered until her heart seemed numb with the pain of it all. What a fool she had been! Sitting silently in her corner of the crowded third-class compartment she dwelt, with a shivering sense of failure upon those bygone years; and she had been the very last girl who would ever have been supposed likely to be so hideously, so foolishly taken in.

She was an orphan, having known neither her father nor her mother, and from her very earliest days she had been a strange, guarded little creature, concealing the deepest feelings of her heart, hiding them away with a precocious feeling that she must do without those things which lay in the region of love and sentiment. She had stood by, with a quiet face and an inward tightening of the heart when she saw her cousins lifted on to her aunt's knee and pressed in her arms, and then kissed with that loving abandonment which is a mother's kiss, and is at once the purest and the most passionate thing in the world. Honour had never known it. Her stolid air had never invited any spontaneous caresses from her relations. Her aunt had no intention of being cruel, and had never realized for one instant that she was so, but she found the child committed to her charge hard and unresponsive, and she had not sufficient delicacy of feeling, or tenderness of nature to look below the surface and to notice the hungry, unsatisfied longing in the big dark eyes.

Honour had been what she called a "difficult" child; well behaved, but strangely unget-at-able, and after a time she had abandoned even the faintest attempt to get at her. She had, however, done her duty and had reared and educated the penniless girl—educated her indeed so well that there had been little difficulty in finding her a London position.

How well Honour remembered the triumphant joy of independence; of the first money which she had earned unaided. It had been like drinking some strong elixir of life, which made the blood run more swiftly through her veins, and accentuated her unusual beauty. And she had prospered, in spite of the fact that she was exquisite enough to have found her path beset with complications. None had, however, come her way, and she had cased herself in an armor which had made her quite impenetrable to any foolish flirtations. Her manner had been a charming combination of girlish stateliness and the respect due to her employers. She never, for an instant, forgot either what was due to herself or to them, and as she was remarkably capable she soon rose to receiving almost the highest salary within her reach, sufficient to give her a power of leaving her aunt's home and setting up for herself with a girl friend. She also found the time and the money to look shyly toward the lighter side of life, and to grasp with a timid hand a little of the joy of youth.

She dressed her hair more becomingly, although she was half frightened at the added beauty which the soft curls and waves gave her, and occasionally she perpetrated the reckless extravagance of

a smart tailor-made dress and pretty hat, and it was then she had met him.

Their introduction had been all that is most correct, for the girl she lived with had been well connected, and spent her leisure moments at the house of a friend of hers. To this friend she had poured out the string of Honour's perfections, until, her interest aroused, she had been told to bring the beauty to be looked at.

This had not been accomplished without some difficulty, for Honour's pride immediately flew to arms, and she would have refused the invitation then and there if her friend had not pleaded almost with tears. Then—for it was written in the book of her fate, so much so that Honour seemed to have felt the moment advancing upon her through all the dim shadows and mists of her childhood—she had accepted, and she remembered well every moment of that evening.

First of all, the gay preparations; that had been the most entrancing part, for the friend had decided that undoubtedly they must wear low-necked dresses, and Honour not possessing such an article, but being skilled in home dressmaking, had made one for herself. She half laughed and half cried as she thought of that dress; a pale green velvet which she had picked up at a sale, and which she persisted in wearing. She had been right, for odd and unusual as the color was, it had clothed her white face and neck as the green sheath clothes the lily, and she had stood out among the white-garbed young ladies as a picture of Sir Edward Burne Jones would stand out among the present-day fashion plates.

Honour knew nothing of what is called "artistic" dressing in those days, and she had only followed her own fancy in refusing a flower for her hair, and in twisting a large, old-fashioned snake bracelet there instead, where the dull gold showed up in the softness of the dark, curling masses, and the two emerald eyes gleamed above her low forehead.

It was only when she felt Quinten's eyes upon her that, for the first time, she realized what an intoxication it is to be twenty-one and very beautiful.

His had been no vulgar admiration, confusing her with its suddenness and its openness, but a calm, steady, respectful and determined wooing. She was glad to think now of the many obstacles she had put in his path, and which he had swept aside, but even now, when the train was carrying her away to a new life, she could not bear to think of the moment when she had capitulated, and forcing the past back into the gulf from whence she had drawn it for a moment, she turned and looked out of the window, noting, with a feeling half of dread, that two thirds of the journey was already over. What was in store for her?

[TO BE CONTINUED]



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No. 35—Tumbler Doily. This doily is designed especially to go with the plate doily. Of course they are not always a necessity, but they are generally in evidence on a perfectly equipped table. These doilies are embroidered in white thread. To embroider them in color is no longer considered in good taste. The plate doily is also useful to place underneath a small jardiniere in the center of the table. Stamped on linen, 15 cents; perforated pattern, 10 cents.



No. 36—Child's Bib of white linen with duck designs outlined in blue, the solid work yellow. The sides and bottom of bib are finished with double hemstitching, and wash ribbon is used for ties. It is so simple that any child could make it, and every child is pleased to make something that is useful for her little sister or brother. The work can be made more simple by having the bill and the feet just outlined in the yellow instead of working it in solid embroidery. The particular mother is careful to see that her baby has many bibs, as they afford such a protection to the little dress underneath. Stamped on linen, 35 cents; thread, 5 cents.

NOTE—Order Miss Parsons' embroidery patterns by number from the Embroidery Department, Farm and Fireside, Springfield, Ohio. Remit by money order, currency or stamps.



## Two Important Live-Stock Shows

**A**N INTERNATIONAL live-stock show or a national dairy show, either one in itself, would be sufficient to draw a big crowd of people, but when two such events occur at the same time in the same city it is not to be wondered that the farming and stock-raising folks of the larger part of the nation turned out to witness the dual attraction.

The ninth annual live-stock show opened at the Union Stock Yards November 28th, and the national dairy show threw open its doors at the Coliseum December 2d, and both continued until December 10th. A car ride of twenty minutes was sufficient to transfer visitors from one show to the other.

Quarantine restrictions caused by the outbreak of foot and mouth disease in the East interfered with both shows, but both had a representation that made one of the finest exhibitions of beef and dairy stock that ever has been witnessed at any place or on any occasion.

At the live-stock show there were in round figures twelve hundred head of fat and breeding cattle, about two hundred and fifty head of hogs, nearly eight hundred head of horses and eight hundred head of sheep. In addition there were over thirty-five hundred head of cattle, hogs and sheep in carload lots.

The quarantine restrictions interfered greatly with the dairy show, so that not more than twenty-five herds of Ayrshire, Brown Swiss, Dutch Belted, Jersey, Guernsey and Holstein cattle were shown. But the type of animals of all breeds and in full classes delighted every dairyman who saw them.

There were more shorthorn cattle at the live-stock show than any other breed, about three hundred and eight head. In the aged-bull class there were eleven of the finest animals ever seen in the United States. The champion animal was sold to a representative of the Standard Oil Company and was taken to Kentucky. He was raised by F. W. Harding, of Wisconsin.

The red, white and roan shorthorn steers were exceedingly strong in quality. Thirty-five head of shorthorn cattle sold for over eighteen thousand dollars, one female bringing over one thousand dollars.

The white-face cattle were next in point of number, there being two hundred and eighty-six head. One of the Hereford classes was so large and the competition so strong that the management added three special prizes. This class was the junior heifer calves, and it afforded one of the finest and most interesting spectacles ever witnessed at a show.

### Many Honors for the Angus

But it was the Angus tribe that came in for an immense amount of glory this time. Two years ago the Herefords furnished the grand champion steer, last year Canada sent down a cross-bred shorthorn that claimed the prize, but this year the Angus people gathered in the most-sought-for distinction of the exposition. They got the grand champion steer, the grand champion group of three animals, and three championship prizes on as many loads of fat steers. The Angus bulls made a tremendous showing, the strongest, Judge Kinzer of the Kansas State College said, that ever has been brought to the International.

In the two-year-old cow class three animals were so near alike that it was next to impossible to make a decision, but finally it was given to Otto V. Battles, of Maquoketa, Iowa. The Angus steers in the sale made the highest average of the breeds, bringing an average of nine dollars and fifty-three cents, but some of them ran as high as thirteen dollars. This was the price brought by a load of Angus yearlings.

The Polled Durham showing was smaller this year than usual, for the reason that Governor Deneen, of Illinois, shut out the Michigan animals on account of the quarantine of that state. The Galloway tribe made a good showing in all of its classes, and there was a great amount of interest in this big, beefy type. There was also a good showing of Red Polls.

There was one of the finest collections of sheep that ever has been brought to Chicago. This refers to both the fat and the breeding stock. The Southdowns were remarkably strong both in numbers and in quality. There was a good showing of Oxfords, but the number was few. There were good classes of Cheviots, and one exhibitor showed a pen of Suffolks. The Rambouillets are newcomers to the Chicago shows, but they made a good showing, although they did not have the wool or the mutton of some of the other breeds. The Hampshires were quite strong, and there were several exhibits of fine Cotswolds. There were also Lincolns and Dorsets. There was a warm contest for the grand champion wether, which finally went to an Illinois man.

The swine men were greatly pleased with the pens of barrows shown, which were away up on quality, but light on quantity. The hog men say that the high price of corn served to curtail the number that otherwise would have been brought to the show. Then, again, the hog men are holding on to what they consider valuable boars, and are not willing to increase their barrow stock. The Berkshires had excellent individuals. The Poland-Chinas were shown in small number, but of fine quality, and there was a marked improvement in Duroc-Jerseys. It was noticed that the Chester-Whites did better this year than at other shows.

### The Horse Show Attracts Attention

The great and never-lessening interest of the entire show, however, was in the horses, nearly eight hundred head of as fine animals as ever were lined up at any kind of show. In other years the cattle have held the interest ahead of the horses, but this year the big crowds went around to the horse side of the arena and stayed there for seven days. The Percheron was first shown in the draft-breeding classes, and there were two hundred and eighteen entries, the bulk of them having been imported this year. In conformation and size they were nearly equal, but the judges' eyes sought out the animal with the heaviest bone, largest barrel and shortest back. There was little deviation, and the men who placed the animals had the task of their lives. The horses displayed great freedom of action, and possessed style, quality and substance. Some of them seemed to have as large a girth at the flank as around the heart, indicative of ruggedness and easy-keeping qualities. In one of the classes seventeen nominators named forty-four entries.

The Shires fairly outshone their tribe. In the class of aged stallions there were thirty-two entries. They stood there, finest specimens of brown, black, bay and gray animals with white faces and hocks. There was a similarly fine showing in the aged-mare class.

The Belgians also came in for an immense amount of glory, as did also the Clydesdales. The get-of-one-sire class of this breed made an immense showing and greatly pleased the big crowd of farmers and stockmen who held their seats five long hours at a stretch.

The coachers and the hackney horses had many friends at the show, and the stock shown brought out a great amount of praise. Horses were shown in the halter, harness and saddle, and were ridden by men and by women, by squads of well-drilled policemen, and by troops of Uncle Sam's cavalry. The interest in the equine abounded at all times and was there at the climax when the ultra wealthy of New York and other cities brought to the International ring the costliest driving and riding horses owned in the United States.

A great throng of people went away from both the live-stock and the dairy show greatly impressed with one feature. That was the showing of young stock in both rings. The yearlings and the calves, the colts and the lambs, furnished a sight that made the stock raiser think. It is this young stock that holds out great promises of the greatest progress and which is sending the fame of this land to every civilized nation on the globe.

J. L. GRAFF.

### The Loss of Humus in Forest Fires

**I**T is a crime to rob future generations of their rightful inheritance, which is the preservation of our forests on all of our uplands, inasmuch as they are inseparably connected with the preservation of the surface soil wherever grain growing is made a specialty.

The importance of the protection of our forests from the destructive effects of forest fires is just beginning to be realized. Aside from the destruction of timber, which is now constantly increasing in value, the destruction of the vegetable mold overlying the subsoil constitutes the most serious of all losses to present and future American farmers. It is as the St. Paul "Pioneer Press" editorially remarks when referring to the destructive forest fires that have occurred this year: "Great as the losses of timber, buildings and improvements have been, the loss of humus is by far the greater one. The vegetable matter, so abundant on the surface of the soil in a new country, is devoured by the flames. The top soil, with all it contains, is turned into ashes. For two or three years good crops may follow because of the abundance of the ashes lying over the soil, but the stimulating effect of these is soon lost. The area thus burned over will not recover what is lost by such a conflagration in a score of years or in a period much longer."

W. M. K.

## In the Back Office

Where the Editor talks with the Business Manager, and where you, the most important factor in the Farm and Fireside family, are always welcome.

"Getting used to a thing" carries with it a certain amount of indifference and inattention on the part of all of us. Perhaps that is the reason some of the FARM AND FIRESIDE family seem to have forgotten all about the notice relative to advertising, which we carry at the top of our Editorial Page (Page 14 of this issue).

Every week we receive letters asking: "Can you guarantee the reliability of such and such an advertiser?" Most certainly and emphatically we can guarantee it; if we couldn't, no power on earth could have induced us to print his advertisement.

Do you realize what this means to you? It means you are as safe in dealing with any advertiser in the columns of FARM AND FIRESIDE as you would be in dealing with your home bank—safer, as a matter of fact, unless that bank is a mighty big-waisted concern. FARM AND FIRESIDE takes the risk and guarantees your protection.

Why has it seemed necessary and proper for us to take this emphatic position? Why, in spite of our printed declaration to this effect, do some still write to us for a reiteration of it? Why, in fact, are we all apt to be suspicious and skeptical of printed advertisements? Simply because conscienceless publishers have too often debauched their columns to fakes and frauds. The stamping out of this curse, the final remedy, is in your hands. Lack of patronage means extinction. Much has been accomplished already along this line. Much is still to be accomplished. Insist upon the guarantee of a reliable publisher before you buy any unknown goods.

### Agricultural News-Notes

The farm is not the only thing to be cultivated.

Sweden is now raising forest trees faster than it is cutting them down.

The state of New York now produces about one ninth of the hay and forage of the United States.

Not more than one fifteenth of the roads in the United States have been properly improved.

The forty-second annual session of the National Grange was recently held in Washington, D. C.

Now that the national pure-food law is in force, the producers of foods of all kinds should aim to deal honestly with consumers.

The "Gardeners' Chronicle" (England) reports, as the result of a recent voting contest, that "Cox's Orange pippin heads the list of the choicest dessert apples." Quality is now becoming an important factor, and Grimes' Golden is equally entitled to as high a position as a dessert fruit.

## A RED MARK

in the square below indicates that your subscription has expired or expires this month. Please renew it now.



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## TIMOTHY

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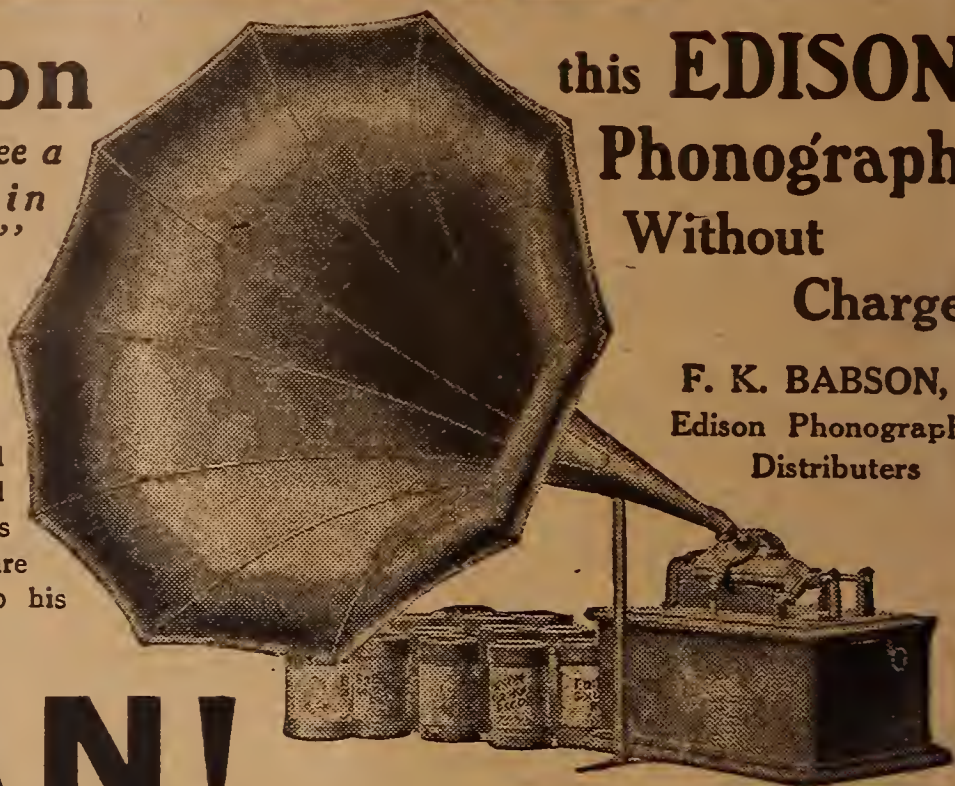




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### My Offer:

I will lend to every reader of this paper a genuine Edison Standard Phonograph, with our Parlor Grand Equipment added. I will allow this phonograph to remain in your home while you and your friends enjoy its sweetest music—all its varied entertainment—without charging you one cent. You may then return the outfit at my expense without having incurred any obligation to buy, without any obligation whatsoever.

I will lend to every reader of this paper a genuine Edison Standard Phonograph, with our Parlor Grand Equipment added. I will allow this phonograph to remain in your home while you and your friends enjoy its sweetest music—all its varied entertainment—without charging you one cent. You may then return the outfit at my expense without having incurred any obligation to buy, without any obligation whatsoever.

F. K. BABSON.

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I know that when your friends once hear a genuine New Style Edison with its perfect tone reproduction, they will want one. If they do not buy at once—they will send at some future time. By lending a few people the new machines, letting them play the machines for their friends, I will quickly acquaint everybody with the superiority of the Latest Style Edison.

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## Edison Catalog FREE

Now I want to send you at once our **FREE** Edison catalog and list of 1,500 Edison Gold-Moulded

Records, so you can pick out just the machine and the records which you would like to borrow on my free loan plan. Sign the coupon in the corner. Send letter or postal if you wish but coupon will do. But write now.

If you have not sent your request for a catalog before, will you favor me by sending your name and address at once? Even if you do not want to borrow the phonograph until a little later, send for a catalog now. The catalog costs you absolutely nothing. Sign the coupon now.

### Lots of Fun with an Edison PHONOGRAPH

Fun for the children, for the young folks, fun for the old folks, lots of fun and entertainment for every member of your family.

No one can listen to the stirring music of the world's greatest military bands, the popular "rag time" stunts, the monologist's hits, the side-splitting minstrel jokes, the old love songs and the best sacred music—no one can listen to this clean, wholesome, instructive and varied entertainment without being impressed and delighted. Think what an influence for good is good music. Think what an opportunity it is to be able to hear the world's great singers in grand opera roles, singing which would cost you \$5 and even \$10 for a seat at the grand opera in big cities. Think what an ever ready resource of entertainment and pleasure for your friends and guests in this talking machine, this instrument which talks and sings and plays right in your own home. Surely the Edison phonograph is rightly called the treasure house of home entertainment.

And look at these pictures of happy home scenes. See the delighted children sitting around the machine, which to them is the embodiment of wonderment, the great tones coming from the horn—the funny stories, the beautiful music—all gladden the heart of the young. It is hard to think of anything else that can possibly make the children as happy as an Edison Phonograph.

Grandfather and grandmother are taken back to the joyous days of their glorious youth. They live over again their own love scenes of 50 years ago as they listen perhaps to the very love song which always makes their hearts beat faster.

You make your own selections from the free list of 1,500 Edison gold moulded records. And in this list you will find some of the old love songs which grandfather sang to grandmother in years gone by. Everything that is pure and clean and wholesome in entertainment is reproduced in Edison gold moulded and Amberol records. You should send the coupon.

And look at the happy family gathered around the blazing hearth. What better or more satisfactory pleasure for a long winter evening. Father and mother, grandfather and grandmother—the dear old folks—and the young people, too, safe in their own home and exposed to no temptations—all the family bound together and enjoying the same pleasure, hearing the same songs and laughing at the same ludicrous stories as they come forth from Mr. Edison's great invention.

Don't you think you ought to allow your own family this pleasure, especially when you can do so without one cent of expense? I not only offer but consider it a privilege to lend you such a source of enjoyment. The latest style Edison Standard phonograph added which I offer to lend you free is so different from the squeaking, scratching, rasping talking machines you have heard before that I want to familiarize everyone with its charm, its simplicity, its perfect mechanism, and its tone quality. And there is no better way to familiarize everyone with this perfect outfit than to lend it to the honorable and intelligent readers of this paper. All I ask in return for the loan is that you invite some of your friends to become familiar with the Genuine Edison Phonograph.

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Vol. XXXII. No. 8

Springfield, Ohio, January 25, 1909

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## The Condition of Market Milk

RECENTLY there was published a disquieting statement to the effect that seventy-five per cent of the milk delivered in New York City was unfit for human consumption. That city's board of health immediately rushed into print to dispute the correctness of the statement, but admitted in doing so that their tests and inspection showed that (only) thirty-three per cent could be considered in that class, from their point of view. Giving each authority the benefit of the doubt and averaging the difference, it would be conservative to say that fifty-four per cent, or more than half of the milk used by all classes in the metropolis, was unwholesome, unclean, germ infected, unfit for use. And New York is not alone in this deplorable trouble with her milk supply; in other large cities the conditions are similar, varying only in degree.

What a disparaging commentary on the lack of application of modern methods in dairying! What obvious, indubitable evidence of filthy stables and unsanitary dairies! What a reproach to dairy husbandry! What a rebuke to the personality and character of the dairyman! And he is blameworthy, as are also others who have to do with the handling and delivery of a city's milk supply. But the culpability of the other man does not in any degree serve to lighten the burden of his own dereliction. His is a tub that must stand on its own bottom. He is answerable in so far as the responsibility rests with him.

The environments affecting the milk supply of New York are probably more unfavorable than those of almost any other city in the United States. Yet the complaining cry, "Unclean! unclean!" comes up from the milk consumer of the cities everywhere. The charge is justified, and the war that has been waged, and that is still on, against unclean and unwholesome milk is a righteous fight. It should terminate in nothing short of victory for the forces that are working for a betterment of conditions; not alone for the sake of the babies it kills, the grown folk it infects with disease, but for the sake of the better class of milk producer, the conscientious, painstaking dairyman, who would benefit by the improvement, even should it mean the extermination of the slipshod, unsanitary "milkeries." This last will most likely be by a process of elimination of conditions rather than men.

New York's milk supply comes from six different states. There are thirty thousand dairies and six hundred creameries sending their supply from eighty-six thousand farms, and the distances

from which it is shipped varies from forty to four hundred miles. It can readily be understood how impossible it would be for the New York Board of Health to maintain an effective personal inspection of all the farms furnishing milk. Even if enough inspectors could be employed, they would be handicapped in their work by the farmers themselves. As an instance, it is reported that a statement was recently issued to the milk producers about Middletown, New York, by O. M. Mapes, leader of the Dairyman's League movement in Orange County. The burden of his advice is to kick the inspectors off the farms. He says: "The health commissioner will find that he has bitten off more than he can chew. He cannot enforce his rules because he has no jurisdiction outside the city." What little probability there is of obtaining cleanly and sanitary conditions on the farms of such men as this must be manifest to the most prejudiced. The only reply to such an attitude would be to bar their milk from the city. And it can be done; and, further, it should be done, at least until they wake

if the dairyman did not immediately and radically mend his ways his milk would be barred from shipment. A good deal of work has already been done along this line, and the results have been prompt and satisfactory. This method will get as good results in all the states, even outside the one in which the city is located, as though a government inspector stood guard at the door of every dairy. When the fight for pure, clean milk is properly started by a city's board of health it will soon reach the source of the trouble, ending in a renovation, cleaning up and general improvement of the stables, feeding stuffs, sanitary milking arrangements, care in handling the milk, and such other unfavorable conditions as are factors in milk production.

But until this reign of better conditions shall be realized, what? The answer for the present seems to be pasteurization. This in spite of the objection of some to what they are pleased to term "boiled milk," even though such is not the fact. If for no other reason, and there are several, the attitude of such men as Mr. Mapes would furnish

with these germs from the exterior of the cow; that is, tubercle bacilli are disseminated with the feces of tuberculous cattle. This is shown to be the case by microscopic examinations, by inoculation and by ingestion experiments, in which it was proved that feces are the most dangerous factor in the dissemination of tubercle bacilli by cattle affected with tuberculosis, and that in this respect feces must be regarded as having a place with cattle similar to that commonly accorded to sputa from tuberculous persons. Cattle do not expectorate. The infectious matter that is coughed up from their lungs is swallowed, passed through the digestive tract and scattered with the feces.

Doctor Schroeder, in reporting the results of investigations and experiments extending over more than a dozen years, says that he believes that milk from tuberculous cows, whose udders are not affected, or the structures connected with it are not diseased, is free from tubercular infection, unless it has been contaminated with particles of feces, or some other material that contains tubercle bacilli from the outside of the cows, or from their environment. Other eminent authorities also claim that the germs of tuberculosis are not present in milk from tuberculous cows, even when in advanced stages, unless the udder is diseased, and that it is infected only after drawing, by outside matter, especially the dust and particles of feces.

The bodies of cattle, more particularly the legs and flanks about the udder, are splashed and daubed with feces, both in the stable and out in the open, and they lie down and get their bodies coated with it. Feces are generally splashed and thrown against the partitions of stalls and walls of stables and are promiscuously switched about by the soiled tails of the animals, and only strict precautions and rigid measures will prevent it from getting into the milk pail and on the hands and clothing of the milkers. In some dairies the quantity of feces, both fresh and dry, that finds its way into the milk pail, to judge by the sediment in the bottom of milk cans and bottles, is so great as to indicate the rankest carelessness—a carelessness that is almost a criminal disregard for the health, and even the life, of the consumer.

The state commissioner of domestic animals, in his last report to the governor of Connecticut, says of bovine tuberculosis: "Experience and observations of the last seven years prove that bovine tuberculosis is a stable disease; that it is very rarely, if ever, transmitted from one animal to another in pasture, and



A Dairy-Farm Scene

up to the realization that the health and lives of others are vital factors to be taken into consideration, that the cities must have, will have, purer, cleaner milk.

There is a way, and at present, or until some more drastic measures can be applied, only one effective way to remedy the unwholesome conditions of market milk for the cities, including all those from forty thousand to fifty thousand up.

By diplomatic, yet clearly defined and positive action, the board of health could make of every dealer an active inspector by holding him severely and strictly responsible for the quality and purity of the milk he handles. By bringing him up with a short turn and condemning his supply when it falls below a certain fixed standard he would naturally be very prompt in getting after the dairymen who were producing the poor milk or violating the rules of sanitation. Then

sufficient argument for pasteurization. It offers the best protection to the consumer against milk brought to the city that is below a certain standard of purity. On the other hand, it offers encouragement to a certain class of milk producers to feel that no matter how dirty their milk, it will be made pure by pasteurization. And the word "dirty" is used advisedly. The amount of feces contained in the milk received by the cities would be ample to fertilize a fair-sized garden. And once feces enters milk it is there to stay, for its composition is at once dissolved and the contamination is complete; no amount of boiling will eliminate it, although it may destroy the harmful germs it contains.

It has been demonstrated to the satisfaction of those engaged in recent experiments to determine the origin of tubercle bacilli in milk that it is infected

See Our Extraordinary Offers on Pages 4 and 28



that the scourge will never be permanently removed from the dairy herds until more sanitary methods and conditions are introduced into the great majority of the stables where the dairy cows are housed."

So that, starting at any point you may in a discussion on pure milk, whether it be concerning wholesomeness in general or its infection with or transmissible properties of disease, it all finally resolves itself into a question of sanitation, of cleanliness. Clean, clean, clean! That should be the password into and the watchword of the dairy business. And for the benefit of the dairyman (and his customers) there should be added unto the Ten Commandments this more vitally important one, "Thou shalt be clean." And the punishment for the least infraction of this commandment should be sudden and certain and—well, something very awful, even for the minimum penalty.

#### Factors in Securing Pure Milk

Early in the movement begun by the Department of Agriculture to secure pure milk for the District of Columbia, Secretary Wilson said to the writer: "Any campaign inaugurated to secure pure milk for a city is necessarily a difficult one to carry through to success, because of the fact that it is so almost impossible to regulate the conditions of production. There are so many essential factors to be taken into consideration, so many untoward circumstances and conditions to overcome. The dairy herd must be healthy and absolutely free from any organic disease; that's one good thing. The water supply for the use of the herd, both in the stable and in the field, must be pure and free from any injurious bacteria; that's another good thing. The perfect cleanliness of the stables, the removal of feces promptly, the freedom of

the stalls, walls and partitions from accumulation of foreign matter, and the air from dust of any kind; that's another good thing. The careful and thorough brushing and cleaning of the cows, especially the flanks and udders before milking; that's another good thing. The scrupulous cleanliness of the milkers' clothes, hands and morals; that's another good thing. The thoroughly effectual straining of the milk through several wire screens and thickness of fine cheese cloth as it is drawn from the udder into the pail, and afterward into the cooler; that's another good thing. The rapid lowering of the temperature as quickly as possible after milking; that's another good thing. Passing the milk, immediately it is drawn, through a cream separator, to remove all foreign matter; that's another good thing. The greatest care that can be exercised in washing and sterilizing the dairy utensils, to prevent the possibility of germs collecting; that's another good thing. The nicest attention as to cleanliness in handling the milk at all times, in placing in cans or bottles and sealing against contact with the air and storage at a low temperature; that's another good thing. All of these things are good; they are essential, they are necessary. But all the care and attention that may be bestowed upon one of these things to the neglect of the others will not produce pure milk. Each precaution and detail is as important as the other, and if one of them is slighted or disregarded, no matter how much vigilant care and management may be practised in the other things, the main intention, that of making clean, wholesome milk, will be subverted, and failure will be the net result. So, in our campaign for a purer milk we will look after all of these things, singly and collectively, giving to each the attention that it seems to require."

And what they accomplished in definite,

tangible, working results is so marked and notable as to be a revelation to those boards of health in other cities who have been working without success to secure the same results. When a dairyman's milk fell below the standard for Washington, or he was found derelict in maintaining the sanitary regulations as prescribed, his milk was forthwith barred from the market. Then there was a further sting in the lash; he couldn't come back until he woke up and "toed the mark." And it did not take the milk producers that supplied the city of Washington long to learn that the people there wanted what they wanted just as they wanted it, and they were not slow to fall in line. Only recently the city of Washington barred the milk from New York shippers from entering their market; it was too low in purity and cleanliness to meet their standard. Such milk, however, is now being sold in New York.

#### Milk is More Dangerous Than Water

Assistant Secretary of Agriculture, Professor Hays, said to the writer that he believed the milk supply of a city was far more dangerous than the effects of a poor water supply, and that strict attention to the former was of more importance than the latter.

The medical journals have in the last twenty years recorded fifty-one epidemics of typhoid fever, of over twenty-two hundred cases; twenty-six epidemics of scarlet fever, of over sixteen hundred cases; eleven epidemics of diphtheria, of over five hundred cases; ten epidemics of other diseases, of over seven hundred cases; all of which were directly due and traceable to contaminated milk. To cite one instance: In Stamford, Connecticut, three hundred and eighty-six cases of typhoid fever, resulting in twenty-two deaths, were reported in a little over a month. Careful investigation traced every one of

these cases to a foul well on the farm of a retail-milk dealer. A map made at the time of the location of the cases completely covered this man's delivery route, and it was said that the doctors did not drive off this dairyman's milk route to attend their patients. While water was the cause, milk was the agent that carried the germs of the disease.

Mr. Webster, of the Government Dairy Division, said to me that he believed that merit, a more careful regard for sanitation, would advance the price of milk as well as improve conditions. And this seems to be the keynote to the situation. But until some better provision and system of inspection can be maintained over the farms supplying milk to the large cities, such as Washington inaugurated, this will apply more particularly to the smaller cities and the towns that are served in whole or in part by individual dairymen.

Wherever the dairyman has devoted the necessary care and attention to his work to produce a pure, clean, wholesome quality of milk, something better than the other fellow, he has had no trouble in obtaining advanced prices for his product; providing, of course, that he makes the fact known to the consumer. Clean, healthful milk will sell at home at a profit; it need not be shipped four hundred miles to New York, or some other city, to be dumped into the great mass of common stuff, and at the price of something like three cents a quart. It is up to the milk producer to improve the quality of his product, and then he can demand and command a better price for it—a price that will give him a "living" return and that will pay him for the extra attention.

When the dairyman realizes this, or is willing to recognize the fact, the milk problem of the cities will be solved.

R. M. WINANS.

## Agriculture for Boys

### A Farm School Under the Trees

THE writer last summer attended two encampments in Illinois where a kind of farm school was conducted for one week. One camp was in a grove at the edge of Lovington, and the other was in a natural-woods park a mile north of Greenfield. Large meeting tents and smaller sleeping tents were provided; the boys brought blankets, and their only expense was railroad fare and board, meals at restaurant or boarding tent being twenty cents each. Many people of the vicinity attended the meetings without camping.

Beginning at eight o'clock every morning, two or three hours or the whole forenoon was spent in class instruction, but usually one address was given before dinner. More talks came in the afternoon, and the opportunity for sports under a director, baseball games, football practise, races and other contests. At night there was usually a lantern lecture and an address. The day was crowded full, and much of the work was really interesting. Most of the instruction was given by half a dozen men from the Illinois College of Agriculture at Urbana. The young and older people were greatly surprised to find this instruction so much better and more important than they had expected.

#### The Lessons

Mr. A. N. Hume took his class one morning on a short excursion to find several kinds of plants belonging to each of three families; and these plants were brought to camp and studied the next hour. One was the grass family, known by its hair-like roots, jointed stem, and leaf wrapped around the stem in a sort of sheath. Corn belongs to this family; sedge does not; wheat and oats are grasses.

Smartweeds have swelled joints and the end of the leaf is wrapped about the joint, but does not form a sheath. The docks, buckwheats and sorrels have the same characteristics, and all belong in one family.

Locust plants, cow peas, beans, all the clovers and alfalfa belong in another family, called legumes; they all have the same kind of flower. A very important fact about all legumes is that under favorable circumstances the roots may have little bunches, or nodules, on them, each containing millions of bacteria, which have the peculiar power of taking nitrogen from the air and turning it over to the soil and the plants. This power to secure nitrogen makes the legumes exceedingly valuable, for no other kind of plants have this power, and nitrogen is a most valuable plant food which is running low in many soils, while there is

an inexhaustible supply of it in the air. One of the interesting side items developed on an excursion was that the bull nettle belongs to the same family (the nightshades) as the tomato, the potato, jimson weed and ground cherries. Tomatoes can be grafted upon potato vines, and then the plant will bear potatoes under ground and tomatoes above.

On one excursion Mr. E. A. White and his class "ran the levels" for a tile ditch, surveying, figuring and setting the stakes for several stations. Other days he used the gang plow, grain binder and mowing machines to show how the adjustments were made and how to remedy the common troubles. Many questions were asked and answered, and experienced men who had used such machines for years learned things of special value to them. His class also had practise in splicing ropes and tying different kinds of valuable knots.

Corn judging was conducted by Mr. O. D. Center and Mr. Hume, each pupil examining, measuring and recording the different points of quality in a sample of ten ears of corn. Thirty-five did such one morning at Greenfield, twenty-six one day at Lovington. Seed-corn selection and the whole work of the season in producing a crop of corn were topics well discussed in different addresses.

Two very interesting lessons in forge work were given at Lovington, testing different grades of iron and steel and explaining some of the simple operations in handling hot iron. Mr. W. C. Coffey gave good lessons in judging different kinds of live stock.

In a separate tent at Lovington Miss Helen M. Pincomb of the University of Illinois gave lessons in household science. This instruction proved, if possible, even more attractive than the men's work. Twenty girls made bread, while a larger audience watched them and heard the instructions; another day they canned peaches; they had an object lesson in setting a table, in the proper furnishing of a bedroom, and heard excellent talks upon caring for a house.

#### Study of the Soil

The soil addresses given by Prof. Cyril G. Hopkins of the University of Illinois were the most important and impressive single feature of the encampments, because he told how the land must be treated to keep it rich enough to grow good crops for all the men who are to farm it in the future for hundreds or thousands of years. Our common ways of farming are not doing this, and many Illinois boys now going to school will find it very difficult to grow as good crops as their fathers did on the same land.

ARTHUR J. BILL.

## The Manure Spreader

### From My Experience With It

MY FIRST experience was with a manure spreader of forty-bushel capacity, and my present one has a fifty-bushel capacity. Their extended use convinces me that they cut in half the cost of removing and distributing farm manure, hard-wood ashes, floats and that class of fertilizers, and double their value.

To explain more fully some of my reasons for arriving at the above conclusion, I may say that the only labor done by the man in loading the spreader. This is done a little more rapidly than when he must also spread the load by hand, for he is not exhausted by the extremely hard work required by that process. The only time he needs to hurry is while loading. At all other times he is riding on a spring seat and the team is doing the hurrying. He also becomes more interested in the work and takes a pride in it, for I have observed that in hauling manure on a wagon each man prefers to let the others do the work, while with the spreader each one prefers to do it.

The time taken to drive to the field with a loaded spreader is a little less than with the ordinary farm wagon, for the reason that the high hind wheels, wide tires and turned axles and bearings make a lighter draft to the spreader.

The spreader distributes a fifty-bushel load in from about three to ten minutes, while to distribute the same quantity by hand would require about forty minutes. The conveniences in loading, the condition of the ground over which we haul, the distance we are hauling and other things may change the relative amounts hauled, but I conclude that a fair average is that with a spreader the manure is removed and distributed in less than one half the time required when handled on an ordinary farm wagon and distributed by hand.

#### The Spreader Increases the Benefits From Manure

My experience is that from four to six loads of manure to the acre produce as good results when applied with a spreader as double that amount when spread by hand on very similar soil, and the benefit has been apparent during the second, third and fourth years after applying. I account for this by the fact that the heater of the spreader revolving rapidly resembles somewhat the cylinder of a thrashing machine, and makes even the coarsest manure very fine. Not only this, but it distributes the manure so uniformly that practically every square inch of the soil receives its share of the fertility in condition to be more surely and readily available for the food of the plants than it can possibly be when left in lumps, as when spread by hand. The

prime benefit to be derived from a fine pulverizing of either soil or manure is that the roots of plants can more easily secure the plant food.

The favorite argument which farmers advance to defend the practise of spreading manure by hand, and applying from two to five times as much as the spreader does, and leaving it coarse and lumpy, is: The fertility is there and it will do good some time. The same argument is equally good to defend the practise of leaving the soil in clods and lumps. But most of us farmers spread the manure, till the soil and plant the seed to get a crop at the next harvest instead of years hence.

In no way is the benefit of finely pulverizing and evenly distributing the manure more apparent than in top dressing newly seeded fields or meadows. The fertilizer acts more quickly and gives the grasses and clovers an early start, which is very important. The stalks, straw and lumps are torn into fine pieces, so that they are not raked up with the hay, to its great damage. In fact, many kinds of manure which could not be used at all for top dressing because of its coarseness would be pulverized by the spreader and made valuable.

#### How Manure Should Be Applied

Another great benefit to be derived from the use of the spreader is that practically each square yard of land has the same amount of manure distributed upon it, while by hand spreading some square yards will have at the rate of seventy-five to one hundred loads to the acre, while others will have little or none, and the thinner we attempt to spread by hand, the more serious the difficulty.

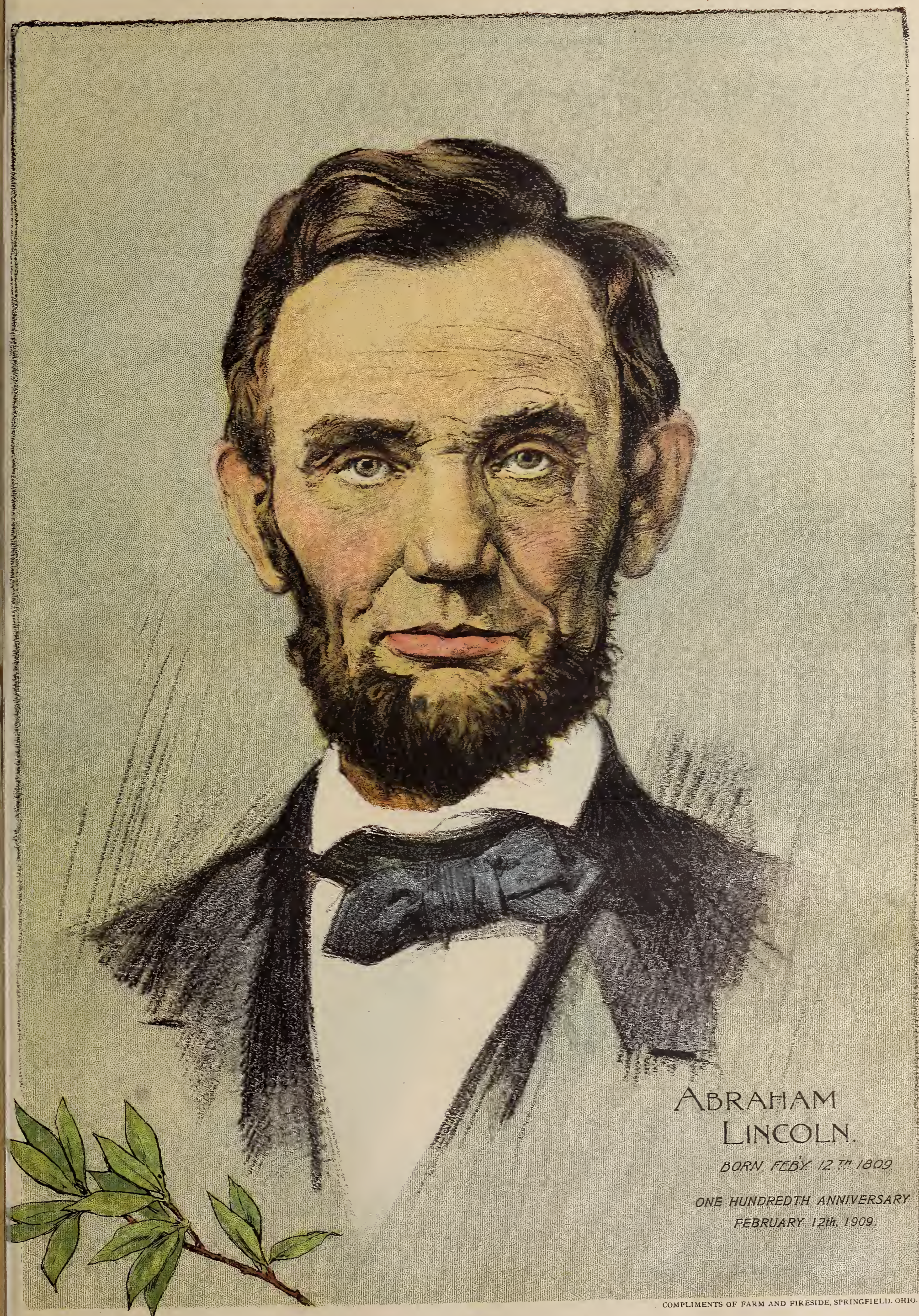
To obtain the most benefit from the use of my manure spreader, I apply the manure to heavy sod for corn and top dress my meadows.

I apply about fifty-one tons of hard-wood ashes each year by putting on the slow-feed and filling the spreader about half full of manure, and putting the ashes on top, using a hood to prevent their blowing away.

With my spreader I can distribute three, six, nine and twelve loads to the acre. All other farm machines save manual labor, but no other machine increases the fertility of the soil. If you have no manure spreader, get one and save your health by removing the manure as fast as made, your strength by letting the machine and the horses do the work that they will do much better than you, and the productiveness of your land by returning at least part of what you are taking from it year after year in your crops.

CHAS. A. UMOSSELL.





ABRAHAM  
LINCOLN.

BORN FEB. 12<sup>TH</sup> 1809

ONE HUNDREDTH ANNIVERSARY  
FEBRUARY 12<sup>TH</sup>, 1909.

COMPLIMENTS OF FARM AND FIRESIDE, SPRINGFIELD, OHIO.

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"WITH MALICE TOWARD NONE BUT JUSTICE TOWARD ALL."  
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"HOME, SWEET HOME"



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# Around the Farm

## Items of Interest and Value to the Progressive Farmer

### Planning the New Barn

THOSE who are making preparations for building new barns next summer should now give special thought and study to planning the proposed structure. No one can do this so well as the owner himself. To depend on some fancy plan formulated in an architect's office is almost certain to prove unsatisfactory. There are too many "modern" barns, the peculiarities of which may be traced to this source. For inconvenience and discomfort to man and beast respectively they are examples that it would be hard to surpass.

Every farmer who is getting ready to build should pay a visit to the most approved and up-to-date barns in his neighborhood. Equipped with note book, pencil and measuring rule, he should make an inspection of them in detail, noting the desirable features. If he is a feeder of beef cattle, his investigations will lead him to those who are following the same line; if dairying is his specialty, let him study barns used for that purpose, and so on down the list. Having secured all the information that is available in this way, he will have secured a pretty good assortment of ideas, and may proceed to incorporate them into his own plans.

It is right here, however, that he will make a discovery. The arrangements, which in many cases seemed perfection under his neighbor's conditions, may have to be more or less modified to be equally suitable for him. Herein lies the value of getting full and complete plans onto paper before the work is started. The weak point of any particular feature is so magnified that it attracts attention at once, thus affording an opportunity of supplying the remedy before it is too late. It will be seen, therefore, that any attempt to outline a model barn that would be adapted to the needs of all would be absurd. To secure the best results, every man must "cut his coat according to his cloth," for the ready-made barn plan in this respect is not unlike the suit of clothes of a similar brand.

There are, however, certain underlying principles that are applicable to all cases and should not be lost sight of in developing the plans. Great care should be taken in the selection of a site. A saving of time and energy will be effected by having it at a convenient distance from the house, but far enough away to reduce the danger from fire to a minimum, to avoid contamination of the well by soakage or to preclude any annoyance from stable or bary-yard odors.

In many parts of the country the prevailing practise is to select the face of a side hill, excavating the earth so that the stable doors will open on a level with the surface, while the back of the stable is from two to four feet below the level of the ground. If the subsoil be a very dry, porous sand or gravel, perhaps no serious objections can be urged against it; but on a clay soil it is next to impossible to secure a perfectly dry stable and yard. Not only is there the surface water to contend with, but there is a constant soakage that tends to keep the stable damp and the surrounding ground soft and muddy during a large part of the fall and spring months.

By building on the crown of some slight elevation these drawbacks may be easily overcome. A natural drainage is provided that insures clean and dry surroundings, and the barn looks better, adding considerably to the general appearance of the homestead. It is also desirable that the site allow the barn to face the south or the east. This position affords protection from the prevailing winds, placing the sheltered and the sunny side together, advantages that may be utilized in locating the yard. Thus when the stock are let out for exercise

or the doors are open, as they must necessarily be at times during each day, the chance of their being chilled by winds blowing directly on them is greatly minimized.

Attention should next be directed to the basement walls. To have this part of the building satisfactory, there are three points that should be kept in mind: (1) The material used must be of such a nature as will insure permanency. (2) The walls should have sufficient strength, without undue thickness, to easily withstand the weight imposed upon them, and to resist any strain, such as might be caused by violent winds. A very thick wall not only reduces the size of the stable, but also interferes with its proper lighting. (3) There should be insulation. That is, to facilitate the control of the stable temperature in any weather and prevent the condensation of moisture on its surface, the wall must be a non-conductor of heat.

#### Local Conditions Must Determine the Material to Be Used

"What material shall I use?" is a question frequently asked. Whether it shall be concrete, brick, stone or wood will depend largely on local conditions. Where clean gravel can be readily obtained, nothing will fill all the requirements so admirably as cement concrete. Besides being the most economical material for the purpose, it will carry double the weight of a stone wall. It is dry and warm, and when properly finished presents a fine appearance. Brick, while it costs more and is less durable than concrete, is perhaps equal in other respects. It is an excellent non-conductor, looks well, and in many other ways is a desirable material for basement walls. Stone has heretofore been the most commonly used, due no doubt to the relative ease with which it could be obtained in most districts. The cost of a wall constructed with this material is intermediate between that of concrete or brick. It is more durable than the latter and less so than the former unless laid in cement mortar. Dampness is the chief objection to it. Being a rapid conductor of heat,

to remedy and are likely to remain a permanent source of annoyance. The doors should be sufficiently wide to allow stock to pass through them without crowding. For cattle, from three and one half to four feet will be quite enough, while for horses a width of seven feet is preferable. Regarding the windows, it is desirable that they be fairly large and lots of them, as sunlight is the cheapest and one of the most efficient agents known for the destruction of disease germs. Here is a formula that points out how it may be secured in the greatest possible degree: In a wall twelve inches thick, with the rays of the sun striking it at an angle of forty degrees, a window sixty inches wide will admit nearly three times as wide a stream of sunlight as another that is only thirty inches wide; and if the wall be twenty inches thick, the one will admit, under the same conditions, more than four times as great a stream of sunshine as the other. Hence the economy of large windows and thin walls.

The laying out of a stable may almost be said to be an art. There are two principles that should always guide one in this part of the work—namely, economy of space, and convenience in caring for the stock. It is assumed that the dimensions are in keeping with the number of animals to be accommodated. Ample room is necessary to the best sanitary conditions. It is a costly mistake to have the alleys and passages so wide as to be out of all proportion to the space devoted to the stabling. That behind the horses need not be more than eight feet, while five feet behind the cattle will be quite sufficient for cleaning out with a horse or with a litter carrier. It is generally a waste of space for the feed alleys to be more than seven or eight feet wide.

#### Convenience in Feeding Should Be Provided For

It is desirable, as a matter of convenience, to have the feed room centrally located. If roots are grown, the storage cellar should be placed in a similar position and directly under the barn floor, so that the filling may be done

man standing at any place in the stable should be able to see every animal that is in it.

No stable is complete nowadays without some provision for watering the stock inside, and a good system of ventilation. When planning the general lay-out of the stables these two points should be given consideration and the necessary provisions made for installing the particular systems decided upon.

#### A One-Building Plan is Economical

It is a great convenience to have everything under one roof. In winter one can go inside, shut the door and do chores without having to expose himself to the weather. I have known men who had their cattle barn, horse barn, tool house, granary, etc., all in separate buildings and some distance apart. This is poor economy. In the case of fire they may be safer, but I would prefer to keep well insured and do away with so much tramping.

While I have gone somewhat into details regarding the basement of the barn, for it is there that mistakes are more frequently made, it is desirable that it harmonize with the upper part of the building. It is often convenient, in laying out the basement, to have it fairly wide. But conveniences above should have some bearing on the dimensions. A very wide barn makes a good deal of extra work in storing hay and grain. At thrashing time the difficulty is repeated in getting stuff to the machine, and also in removing the straw from it. I find that most farmers that have built barns wider than fifty feet regret it.

Under ordinary circumstances a farmer builds but once in a lifetime. It therefore behooves him to look sharp in making his plans. To have them complete in every particular will save him no end of future regret and annoyance.

J. HUGH MCKENNEY.

### Notes on the Farm Wood Lot

Too many farm wood lots are simply neglected, and by far the greater number of them are misused for want of foresight or a true appreciation of their value.

The wood lot should never be turned into a pasture if it can possibly be avoided. Tree seedlings are quickly bruised and crushed by the trampling of live stock. Hungry cattle browse upon them. The soil becomes packed hard and is unable to retain the moisture so much needed for the encouragement of young growth.

The best trees should not be selected for cutting in a wood lot which needs thinning. Nearly every wood lot is composed of a mixed stand in which dead and unsound trees, weed trees and sound, useful trees are intermingled. If the choicest living trees are selected and removed, the stand will grow poorer in

stead of better, and in time will become almost worthless. WM. H. UNDERWOOD.



Model Dairy House and Barn for the Production of Sanitary Milk

the moisture in the stable atmosphere readily condenses upon its surface. Hence in mild weather it is generally damp and in very cold weather is coated with frost. The cost of a good wooden wall makes it almost prohibitive if any of the foregoing materials are available. Sometimes, however, the farmer has his own supply in the form of logs that he can haul to a mill and have the lumber sawed for the purpose. With a concrete foundation rising a foot or two above the ground, and continuing with a wooden frame to the desired height, he will, if properly constructed, have an ideal wall. I have known quite a number of cases in which this plan was followed, regardless of cost, when the very best possible was the object in view.

When mapping out the prospective stable one should be careful to have the doors and windows in their right places. Mistakes of this kind are very easily made. Once made, they are very hard

from above. An ideal arrangement is to have the door of the root cellar and that of the silo chute open directly into the feed room. The whole ration may then be compounded with the minimum of labor, and as convenience in feeding generally means better feeding, a little thought given to this part of the plan is likely to be well repaid.

Apartments for loose cattle should be long and narrow rather than square, in order to admit of plenty of manger room. It will be found a decided convenience to locate them so that a team may be driven straight through for cleaning out. Two or three box stalls for breeding animals and for colts are very essential in a well-arranged stable. Have the one in connection with the horse stable at least fifteen feet square; for cattle ten or twelve feet square will answer very well. All inside partitions and stalls should be kept as low as possible, to prevent any obstruction to the light and view. A

## NOTICE

The "Home, Sweet Home" picture described on the opposite page has also been made into the beautiful "Home, Sweet Home" Calendar for 1909.

Either the calendar or the picture will be sent **without cost** to every one who accepts one of our Last Chance Offers opposite, before February 10th—not 28th, as stated in error. Be sure to state which you want, and remember February 10th is the

**VERY LAST DAY**  
AT THESE PRICES



# Investment of Farm Profits

## Part II. Investment of Surplus Income in Farm Mortgages---By Charles C. Fisher, Esq.

ANY one can make money; few know how to keep it. This is not an absolute, mathematical proposition; but for all practical purposes it is the truth. Note that any man *can* make money. Many, in fact, do *not* make it. Savages don't take the trouble to earn anything. They take what they want either by open robbery or by clandestine theft. Among civilized races there is a small percentage of incompetents; another small fraction of men of "one talent," who start with little and hold their own during life. All the rest can, and most of them do, make money. Only a few, comparatively, save anything. Eminent authorities have stated that only about two per cent of men in trade make a permanent success. Rarely does a fortune remain more than two generations in one family. The great majority of wage earners spend their money at least a month before they get it. And many who do not eat up their earnings squander them by buying unknown bonds or stocks ironically called "securities."

Farmers, who get their profits by hard, continuous toil, are apt, not without reason, to envy the merchants, manufacturers and speculators who succeed in piling up vast fortunes, but they overlook the much greater number who fail in their attempts. Is it any wonder that they are tempted to try some of the "get-rich-quick" schemes so constantly offered, ingeniously advertised and unscrupulously recommended? How few realize that husbandmen as an entire class are growing rich more surely and faster than any other class! They not only create the real wealth of the land by coaxing it from reluctant soil, but they also retain a generous share of the profit. With abundant crops and such prices as now prevail it is easy to understand why the large bank deposits are made by husbandmen and stock raisers. A Western banker writes: "Instead of borrowing money, the farmers are bringing it to us and depositing it for six months or a year to get the interest. When the corn crop is gathered, I don't know what they will do with their accumulations. A few years ago nearly all the money loaned by the banks to farmers was to live on or to carry over their mortgage interest. At that time hardly any money was borrowed by business men. To-day the business interests are the borrowers, and it is the farmers' surplus wealth which is loaned to them."

Kansas, the typical agricultural state, is enjoying this high degree of prosperity while great industrial centers are in dire distress. Fifteen thousand children must be fed by the city of Chicago, in order to keep them in school, at the very harvest season when Nature is pouring out her bounty of grain and fruit. Surely now is the time for farmers to be content and to make a thoughtful study of investments.

What is the safest kind of investment? The one which the investor knows most about. This needs no explanation. When a man understands a subject thoroughly he can form a safe judgment in regard to it. What does a farmer know most about? Why, farms, of course. It follows, then, that when his own farm has been paid for and improved up to the limit of profitable returns on the capital, the farmer should, first of all, place all his surplus profits in farm securities.

### The Ideal Investment

A first mortgage on improved land in the lender's own neighborhood is the ideal investment. This has several distinct advantages. First, the security is nearly perfect. It is indestructible. Land is called *real* estate because of its pre-eminent solidity and permanence. Neither fire, cyclone, war nor pestilence can destroy it; only some mighty convulsion of Nature can do so. Other things may pass away, but land shall not pass away. And its value is nearly as permanent as its substance. In the course of generations soil may become exhausted, or change of climate may render it sterile; but within a period of five, ten or twenty years the depreciation can never be more than slight. On the contrary, from the increase of population, the development of the whole country and the increasing desire of the rich to live out of doors and own the choice portions of the earth, there is a powerful general tendency toward higher prices. Such a temporary depression as we suffered some years ago was no real loss to the lender. The borrower in too many instances lost his home, but the land was there, just the same, with all its solidity and productiveness; and if

the mortgagee bought it, to save his investment, the value all came back eventually and much more than the old value.

Next, this affords the greatest certainty as to values. A farmer, who knows next to nothing about mines, oil wells, rubber plantations and telepost systems, can certainly form a safe judgment as to the land in his own neighborhood. Slight examination of the soil, crops and improvements in addition to his previous observation and the opinions of the neighbors will enable him to fix the value within five or ten dollars an acre. So there is practically no danger of loss where a proper margin between loan and security is required. And the same principle which makes knowledge of the property a safeguard applies also to knowledge of the person. It is much more prudent to deal with a neighbor, whose character and habits are known, than with a stranger.

Then this form of placing surplus earnings is most desirable, because it returns a fixed income. Crops vary greatly on account of varied weather. No one can foretell, much less prevent, the floods or the droughts, the hail storms or the frosts. One season may bring an abundant yield of wheat, the next a total failure. Last year there was luxuriant pasture till December; this year there has been almost none since August. And prices vary as much as production. Oats, now worth over fifty cents a bushel, sold at the same season twelve or fifteen years ago for seventeen cents. Often the losses from hog cholera or from tornadoes are disheartening. What a consolation, in such a calamity, to possess a fixed income payable on a day certain! One convenience not to be overlooked is the fact that any sum, no matter how big or how little, may be loaned equally well.

Another advantage is convertibility. A note properly secured by mortgage can readily be sold to a bank or to any one having money to loan, and often at a premium. If the holder does not care to dispose of the whole note, or outright, he can always use it as collateral to secure a smaller or temporary loan. Again, if worst comes to worst, and the mortgagee should be forced to buy the land in self-protection, he has no elephant on his hands. He knows exactly how to handle a farm and is near enough to give it more or less personal supervision, and so can obtain the largest possible income until there comes a good chance to sell the land. The final, resulting advantage is complete freedom from worry. Having used all due diligence to place his money in a way that is secure, permanent and convenient, with a certain income, the lender can have no anxiety concerning it, but is at liberty to devote all his thoughts to other matters.

### How to Proceed

When one has reached the conclusion that he will make an investment of the kind just described he should observe a few most important precautions. If desirable applications are not made, he should advertise in some way that he has money to loan on neighboring farms. Then he ought to make a careful choice. The prime consideration is the value of the land offered in relation to the size of the loan desired. If the security be ample, he need not go any further in that direction; but if not sure of this fact, he should make a personal examination of the farm and thorough inquiries of the neighbors who know what crops have been raised. There should be no question as to the sufficiency of the security, for this is the chief merit of the kind of investment recommended. When there are several from which to choose, the character of the applicants must have great weight. Select one who can earn the interest and will pay it promptly, so that a foreclosure will never become necessary.

The title should be examined by a trustworthy person. In many parts of the country titles are very defective. Carelessness in the drawing of deeds, in recording them, in obtaining proper releases of judgments and mortgages and in the settlement of estates is extremely prevalent. Anything approaching a perfect title is rare. The writer well remembers an instance where a man saved twenty-five cents by withholding a release from record. Years afterward it cost him several hundred dollars to clear off the encumbrance and he was in some danger of losing eighty acres of choice land. The examiner should be not only painstaking and accurate, but also competent to distinguish material defects from

trivial. Safety is all that is required, not perfection. In the drawing and execution of notes and mortgages great care should be exercised. Even a slight clerical error may cause annoyance, expense, dispute, or even litigation.

It should be stipulated that the principal shall become due (at the option of the mortgagee) on any default in the payment of interest or taxes, while insurance should be demanded, with loss payable to the mortgagee as his interest may appear, whenever buildings form a material part of the security. This precaution is quite as beneficial to the borrower as to the lender. In case of fire it enables the former either to reduce the debt or to replace the buildings. The safest and most convenient form of note is one with a coupon attached for every instalment of interest. Whenever such a payment is made a coupon is cut off and delivered to the maker. This is his receipt and prevents a dispute as to the indorsement of payments on the note. It need hardly be said that the mortgage should be filed for record as soon as executed, properly before the money is paid over, for some lien, as by attachment or judgment, may be put upon the land at any moment. When all these safeguards are used the lender will have no cause for anxiety.

### Other Local Loans

There is another class of loans which a farmer may sometimes make with profit. He is always somewhat interested in the growth of his market town or of his nearest city. First, it is a great advantage to be close to a place where one can sell not only the bulky grain, but also the small produce of the farm, vegetables, fruits, butter, eggs and poultry, at the highest price, and where he can find a good assortment of all one needs to buy. In short, a good, near trading point is not a mere convenience; it increases the profits of a farm. Second, land increases in value almost exactly in proportion to the growth of the nearest city.

Hence it pays the farmer, indirectly, to help on the growth of neighboring towns. Manufacturing, the turning of cheap raw materials and labor into finished products of great value, is the prime factor in building up cities. Farmers as a rule have neither the time nor the training to enable them to engage in manufacturing with success. It is hard to get stock in an old and really prosperous company, and every new enterprise is an experiment. Subscribing to stock is, therefore, a speculation rather than an investment. These two are very different and we are now discussing only the latter. How, then, can a farmer safely promote manufacturing? Why, by furnishing capital. This can be done either by a direct loan or by taking preferred stock. There is nothing peculiar about the former. The only essential is strong assurance of the continued solvency of the debtor, or good collateral security. Preferred stock is in reality a loan, though in form stock. A certificate is given instead of a note. It has the merit of comparative permanence, as it is usually made redeemable only at the end of a fixed period of considerable length. In some respects it is less desirable than a straight loan. The dividend is limited, but not certain. It may be less, but never can be more, than the rate fixed by the charter. It cannot be paid until earned, and some years the profits may not be sufficient to pay any dividend. In case of liquidation, all debts, with interest thereon, must be paid in full before any of the assets can be distributed among the stockholders. As preferred stock cannot participate in the profits beyond the dividend fixed in advance, it is a strict investment, not a speculation, like common stock, which may either become worthless or rise to many times its face value, according to the degree of prosperity attained in the business. But as the security depends wholly on the continuing financial responsibility of the company, the cautious investor will never subscribe for preferred stock until he shall have received ample assurances. And the main object of such an investment will not be the expected dividends, but the indirect benefits to be derived by the farm from the establishment of a new industry in its vicinity. In most states such stock is exempt from taxation, while promissory notes are not.

The farmer may, of course, like any other man of means, make loans on personal security. The safety of this method

depends chiefly on the business capacity of the lender and the degree of care taken by him in investigating and afterward watching the financial condition and habits of the debtor. It is a plan practised by many who are unwilling to return their notes to the tax assessor.

In conclusion it may not be amiss to explain that the views above expressed are not theories obtained from books or devised in the schoolroom or the editor's sanctum. They are the fruits of more than thirty years of experience in farming, making loans, collecting notes, foreclosing mortgages, settling estates and selling lands. Their truth has been abundantly proved by hundreds of actual examples, as well as by sound reasoning. And they are absolutely disinterested. The writer desires neither to borrow money nor to place loans. His sole purpose is to give safe counsel to those farmers who believe that they need advice as to the investment of their money.

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# Review of the Farm Press

What Others Are Saying About Important Farm Matters

## Food and Growth

IN HIS studies on the growth of animals under different systems of feeding at the Missouri State Experiment Station, Dean H. J. Waters has obtained some fundamentally important results that undoubtedly have a bearing on the question of the dual-purpose cow. In his recent paper before the American Society for the Promotion of Agricultural Science, Dean Waters gave the following important results of his experiments:

Certain steers were fed a maintenance ration. Others were fed a smaller ration in order to learn what would be done with food when supplied in quantities insufficient to meet the demands of the body. Others were fed more than a maintenance ration for the same purpose.

It was found that as long as there was a supply of stored fat in the animal, the growth of frame was as rapid in one of these animals as another; that is, the animal which had only a maintenance ration—and most surprising of all, the animal which had less than a maintenance ration—made just as rapid growth of frame as did those animals which were fed more than a maintenance ration until the supply of stored fat in the body was exhausted.

After that the animal that was fed less than a maintenance ration stopped growth, apparently for the reason that the food must be used to maintain the body after the fat is exhausted, while before that the utilization of fat for the production of heat and energy enabled the animal to use some of the food in making growth. The surprising result was obtained that an animal losing half a pound a day, as long as it had stored fat in the body, gained in height just as rapidly as another animal that was gaining half a pound a day on a larger supply of feed.

These experiments make it clear that in the case of the growing animal the first use of food is for growth, the second is for maintenance, while the third is for the production of fat.

The application of these facts to the dairy cow seems to be apparent. The inherited tendency to convert food into milk is comparable to the inherited tendency to make growth of frame in the young animal. A cow in milk, if she is of the dairy type, will use food for milk production that is actually needed for maintenance, and when the milk producing tendency is highly developed the proportion of the nutriment used in milk production is so large that this primal demand takes so much food that there will be barely enough left for maintenance, and in some cases not enough for that, and none will be left for laying on flesh.

The beef breeds have been developed by the selection of those animals which, during the period of growth, will, in spite of the demand for food with which to make growth of frame, use not only all the food needed for maintenance, but lay on some fat. It is fair, therefore, to presume that the steer calf of the dairy-bred cow, in which the production of fat is the last physiological consideration, will not have the tendency to produce fat at the expense of growth.

It is true that a steer with such an inheritance will fatten after the demand for growth has been satisfied, which would occur after full maturity. It is interesting to note in this connection that in such countries as Switzerland, where the beef is made from animals with dairy inheritance, beef animals are marketed at four or five years of age, for on account of their inheritance they cannot be fattened at an earlier period into prime beef.

It seems to me that Dean Waters' work is throwing a flood of light on animal physiology and will explain scientifically some of the facts at which progressive dairymen have arrived by the cut and dry method.

Professor Waters is also working directly on the question of the physiological tendencies of the dairy cow in the matter of the disposal of food consumed. Leading dairymen will look with much interest for the results of these experiments. —W. J. Spillman in Hoard's Dairyman.

## Pruning Forest Trees

IN pruning any class of trees the purpose for which the trees are being grown should be kept in mind. Forest trees should be trimmed to obtain a straight trunk free from large side branches. Under forest conditions where the trees are properly crowded natural

pruning will occur and there will be but little necessity for artificial trimming. Trimming off of the lower branches of a tree does induce more rapid growth in the head of a tree. Where there are a number of lower branches to be trimmed from a tree they should be trimmed off gradually and not in one season, as this would disturb the balance between the roots and the top of the tree. Probably the best time for pruning or trimming is in the early spring before the growth starts.

In the pruning of fruit trees the object is to obtain the greatest amount of bearing wood arranged in a convenient form. Therefore we prune to obtain a low, open-headed yet compact tree. A low-headed tree bears the fruit in a more convenient form for picking. An open-headed tree by letting in the sunlight obtains an earlier and even ripening of the fruit. Pruning of a fruit tree insures the throwing out of younger fruit-bearing branches.—Wallaces' Farmer.

## Economy in Heating

AN ECONOMIST has said, "Economy no more means saving money than it means spending money, time, or anything else to the best advantage," and in the use of the term "economy" in connection with heating we may infer that it is not limited in its application to the stove or the furnace. Stove men have given much thought to providing the best means for obtaining heat at the lowest cost. This question of heat within the four walls has been well answered. There is, however, one other factor—an important one in heat economy that is seldom recognized—humidity.

To the average person there is a mistaken notion that humidity is the source of extreme discomfort and annoyance on certain sultry days in summer. The term is not expected to have any part in the winter vocabulary. Yet most of us have observed the curious fact that on certain days in winter when the temperature of our rooms is registered at seventy degrees Fahrenheit, we yet feel cold; while on other days, with a lower thermometer registration, we feel warmer. This is because on the days in reality the colder, but when we feel the warmer, there is more moisture in the air. This amount of moisture we speak of in terms of relative humidity. The percentage of relative humidity indicates the proportion of moisture which the air actually contains, at a given temperature, as compared with the highest possible amount that it could contain at that temperature. A relative humidity of sixty-six, with a temperature of seventy degrees Fahrenheit, means, then, that at that temperature the air is about two thirds saturated.

Dr. Henry Mitchell Smith, as the result of experiment, has found that with greater humidity in our houses less heat is required. In other words, a room with a relative humidity of sixty per cent, heated to sixty-eight degrees Fahrenheit, will be as comfortably heated as the room with a humidity of thirty per cent and a temperature of seventy-two degrees Fahrenheit. In language, then, that should appeal to us through the pocketbook, if attention is given to the question of moisture in the air, there may be a saving of twelve and one half per cent in the coal bill.

The query that follows is how to get the benefit of this economy factor? This is answered in the construction of the majority of furnaces of a water box, which, if given proper attention, will supply the required moisture. In the stove-heated house, moisture may be supplied by a small kettle or other vessel kept on the stove and from which evaporation does not take place too rapidly.

Suggestions on the order of the above are frequently met with the threadbare objection that our parents and grandparents got along very well without a care for all this folderol. This objection is without reason. Bearing in mind that the average house of to-day, with its tightly fitted windows and doors, and with its frequent overheating, was out of the question for the average family of fifty years ago; that all these comforts of to-day represented the luxuries of that time, it may be reasonably expected that the householder brings brains to the administration of household affairs, in no less degree than did our parents and grandparents, with their limited facilities, if the greatest benefit is to be derived from the comfort devices that science and invention are giving to us.—Inga M. K. Allison in Colorado Agricultural College News Notes.



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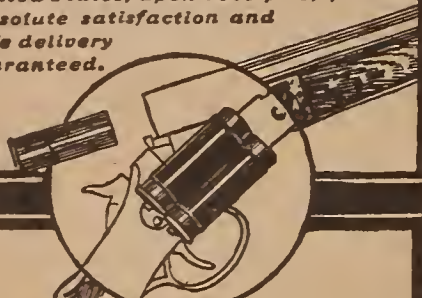
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## Gardening

By T. Greiner

### Beans After Beans

S. D. P., an Oregon reader, desires to know whether beans can be successfully raised year after year on the same ground. I should say not. At least it would not be a safe proceeding to plant them on the same spot "year after year."

I usually plant my limas on the same spot for two, and sometimes three, years in succession, so as to avoid the necessity of moving the lines of posts for the trellises. I just plow the ground, leaving the posts in place, and then restring the wires. But with ordinary bush beans I invariably try to find a new spot for them every year, and I do this on general principles. A rotation of crops is best with almost all vegetables or farm crops. Diseases are liable to develop when the same crop is raised in succession for years.

Of course we could easily supply the plant foods needed, as in the case of beans perhaps with fertilizers, especially minerals. We may succeed in raising several good crops of beans in succession, especially if we take pains to plant perfectly healthy seed; but it would not be safe to raise beans on the same spot "year after year."

### The Catalogues

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### Profits in Hothouse Products

Just at this time I find in the columns of agricultural papers many references to the profits that may be expected in growing winter vegetables, such as tomatoes, cucumbers, radishes, spinach, string beans, cauliflowers, etc., even in small greenhouses. I believe that it may be well to sound a note of warning.

In some respects getting money by growing these crops under glass may be "like finding money in the street." That is, you are just as likely to find money walking up and down the street as by getting it from your forced vegetables. I have known instances of gardeners making good profits in growing radishes and spinach in cold houses—along the seacoast south of New York City, of course—on a business scale, or in growing lettuce and cucumbers in heated houses, also on a business scale, near large cities in various places. But I can't for the life of me, see any money in growing any of these crops in a very small greenhouse.

Reports from gardeners who have for years raised hothouse lettuce for market are somewhat discouraging at this time, as prices have often dropped below the profit line; and in our small houses we may feel that we must have the lettuce and radishes and a few other things anyway, no matter what they cost. But as to profits, when we produce just the small quantity of such stuff for which a small or amateur house provides room, where are they?

I just grow a little lettuce, etc., in the fore part of winter, simply because I have the room and like to keep the greenhouse going. But the main purpose of

running it is to provide the early plants needed for next spring's plantings. If it costs me fifteen or eighteen dollars for coal to run my little greenhouse (ten by twenty-eight feet), I can easily raise plants enough for sale to come to that amount, and have my own supply of plants, and a few messes of lettuce, cresses, radishes, forced rhubarb, chicory greens, etc., besides, all for my labor in running the house during the cold season. This, however, is about the best I could do, unless I would do what many professional gardeners have been doing—namely, changing over to the floral branch of the business. When you are after money returns you will find a better chance in flowers and flowering plants than in forced vegetables and in vegetable plants. Such, at least, is my experience and observation.

### Lime-Sulphur Mixture as a Fungicide

With the exception of one case, that of watermelons, I have never observed any injury to the foliage of potatoes or other garden vegetables by even the freest use of Bordeaux mixture. Yet many orchardists have found considerable such injury on apple foliage, especially during wet seasons.

W. M. Scott of the Department of Agriculture, Washington, D. C., has endeavored to find a safe substitute for Bordeaux mixture as a fungicide, and has experimented with lime-sulphur mixture (self-boiled), which he finds quite efficient for the control of the ordinary leaf and fruit diseases of the apple and peach.

Last year, for the first time, I used some of this mixture, selecting for my tests a ready-made or commercial brand manufactured in this county. The season was not particularly prominent for blights and other fungous diseases, but I applied the mixture, in the dilutions recommended by the manufacturers, on potato, cucumber, melon, squash and pumpkin vines, also on celery, currant and gooseberry bushes, etc. For use on vines I combined with it arsenate of lead in regular or required strength. No injury was noticed even on watermelons. Of course, the beetles and slugs had to go, and blights did not come, at least not to any great extent. Neither was it a year for flea beetles like the year before.

In how far the absence (or comparative absence) of blights, etc., was due to natural causes and how much to the applications of the diluted lime-sulphur mixture, I am unable to say. However, I believe that there may be a prospect of finding in this newer remedy one of considerable value not only for the orchard, but also for the garden. Much has yet to be learned about these things, and more thorough and systematic trials of the lime-sulphur combination will have to be made. In fact, there is no lack of promising work as yet for experimenters and experiment stations.

### Prepared Bordeaux Mixture

At the Maine station, as reported in bulletin No. 154, comparative trials have been made with a number of the commercial prepared Bordeaux mixtures, both wet and dry, in comparison with the home-made mixture. The "dry" mixtures or "dust sprays" do not seem to be "in it." In no case did they in any way approach the efficiency of wet mixtures, while the latter proved to be about as effective as freshly made Bordeaux, provided they were used in such amounts as to supply an equal amount of copper.

The commercial "wet" mixtures must be used in much larger quantities than the directions of the respective manufacturers call for. In other words, manufacturers in most cases claim too much for their goods. If you use them at all, apply them in much greater strength than given in the directions going with the goods. Take this feature into consideration when you make out an order for prepared Bordeaux, or when you want to make up your mind whether to use prepared or home-made Bordeaux mixture next season.

I have come to the conclusion that it is cheaper for me, and certainly safer, to depend on making my own mixtures from copper sulphate and fresh stone lime than to risk prepared Bordeaux. And if we go at it right, and get suitable equipment for it, such as barrels, tubs, etc., it is not a hard or troublesome task.



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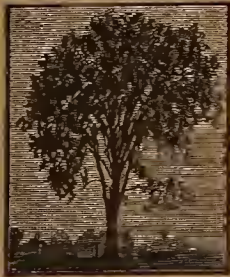
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## Fruit Growing

By Samuel B. Green

### Grape Vine Not Bearing.

Mrs. M. S. H., Durand, Illinois.—You state that your son has a grape vine, the fruit of which just forms, then dries up and falls off, and that this year a few stayed on a little longer than usual, but that the leaves became mildewed.

In my opinion, a grape vine of this sort is not worth growing in your location. It may be adapted to other more favorable places, but is not fitted to the conditions under which it is now growing. If the trouble was simply with the fruit, I should be inclined to recommend that you spray with Bordeaux mixture; but as the foliage is also diseased, I think probably you had better replace it with something hardier. I am inclined to think that in your section, with whatever grape vine you grow, in order to have it fruit well, you will find it necessary to spray with Bordeaux mixture to prevent the black rot. This matter has frequently been referred to in these columns.

### Strawberries From Seed

Practically, strawberries are not raised from seed for commercial purposes, but all that are used for planting in this way are grown by divisions—that is, the runners are taken off of the old plants and set out, and from them come the new plants.

However, there are classes of strawberries that come true, or nearly true, from seed. The old Alpine strawberries, both the white and the red, are what are known as ever-bearing strawberries, and are preferably grown from seed. It is a common belief among parties that grow them that they get more fruit when grown in this way than when grown from runners. This strawberry produces fruit for about two months. It does not bear much, but one might get about a cupful of fruit from a square rod at almost any time in summer and even so late as September.

About ten years ago Vilmorin-Andrieux & Co., of Paris, sent out a variety of strawberry known as St. Anthony de Padua. This variety bears large fruit and comes practically true from seed. It is one of the ever-bearing sorts, and if the flowers are picked off in early spring, fruit will be produced in August and September in considerable quantities. I could not recommend any one to raise this berry in a commercial way at present, but it is an interesting feature of the development of horticulture. I found this variety to have a reasonable degree of hardiness and to be fairly productive.

### Yellow Locust

A. A. K., Lowell, Arizona—Yellow locust is a very excellent tree to grow in almost any agricultural soil, and it will stand very well, even in a naturally dry climate, but it must have a reasonable amount of water about its roots. Without moisture about its roots there is no tree that will do well in your section. I think you will find the cottonwood that skirts the streams of Arizona one of the hardiest for your section.

### Grafting

R. J., Brecksville, Ohio—It requires considerable experience to graft or to prune a plant to best advantage. On the other hand, comparatively little experience is required to insert a graft on an apple tree so that it will grow. I think what you need is a little manual on this subject, and would suggest that you get a copy of "Amateur Fruit Growing," which is sold by the Webb Publishing Company of St. Paul, Minnesota, at fifty cents a copy. This contains a very excellent chapter on the subject of grafting.

### How to Control San Jose Scale

The best and surest method of controlling the San Jose scale is about as with any other disease or parasite. Never let it get a headway. There are, however, so many ways that the scale will be carried that one never knows one year what the next year will bring. Therefore, it becomes very necessary to always be on the watch, and fighting every season whether it be present or not.

### How to Tell the Scale

In fighting the scale it is very necessary for the farmer to be able to tell the scale, so as to be able to apply the remedy where it is most needed. When the trees are dormant, the twigs and the small limbs when badly infested appear grayish, slightly roughened with a scurvy

deposit, appearing somewhat as being covered with ashes. When the scales are crushed by scraping, a yellow, greasy substance will exude from beneath the crust.

When only slightly attacked the small twigs have a reddish color around the scales. Also just beneath where the scales are located the growing tissues between the bark and wood show a deep red or purplish color.

The size of the scales varies from the size of a pin head down to that of an ordinary period. Most other scales found in our orchards are somewhat larger than the San Jose and can usually be readily distinguished.

### How San Jose Scale Injures the Trees

Where a large number of the scales are found they remove much of the sap from the trees, and there is also great injury done to the tissues by puncturing, which disturbs the functions of the cells and hinders the sap circulation. The insects puncture the bark of the trees and also the skin of the fruit with their bristle-like beak, and then pump from the living tissues the sap upon which they live. They are blood suckers, taking the most vital part of the tree, and thus great damage is done. Crops are cut off, and trees killed.

### How to Control the Scale

About the best and first thing that should be done with an orchard that is infested with scale is to cut out and remove all the dead and unnecessary wood. This is especially true with old orchards that have much wood in the tops. After this part of the work has been done and the brush been removed and burned, some kind of spray should be applied that will destroy the pests.

The lime-sulphur wash is the remedy that is most used for the control of the scale. It is safe and cheap, and when applied properly is effective. This remedy has much value as a fungicide, beside being a scale destroyer.

Where there is a large amount of this solution to be prepared it is best to have steam handy for making the mixture, but for the grower who has only a rather small orchard it can be prepared in iron kettles. Such apparatus as is used for boiling feed, or water for butchering, may be made to serve the purpose. A little co-operation among neighbors will give each the benefit of this steam arrangement at a very small expense to each.

### When to Apply This Spray

Of course it is better to begin the work before the ideal conditions prevail, so that it can be done well before the leaves are out. Just before the buds begin to open is, I think, the best time to apply it.

There is no spray that needs more attention to thoroughness than the lime-sulphur wash, and in order that it be applied to every portion of the trees it is best at such a season that one can take advantage of winds blowing from different directions, and also be enabled to go over the orchard a second time, touching up any places upon the trees that did not get a proper spray the first time, as one can see such spots quite readily after the mixture has dried up on the bark. Be thorough and the assurance of success will be much greater.

R. B. RUSHING.

### New Cider in Old Barrels

J. M. W., Spencer, Ohio—If you put new cider into a barrel that has contained hard cider, the chances are that your new cider will turn to vinegar very quickly. If, however, you want it made into vinegar, there is no objection to using barrels of this sort; but in addition to that I would add a little mother of vinegar or about a pint of good cider vinegar that has not been filtered.

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It is essential for the maximum profit that we know the amount and quality of the milk, and that all of the milk be secured from the udder by thorough milking. One would hardly believe the difference that a very small quantity of milk left in the udder at each milking will make in the actual profit.

The last strippings are very rich in fat and will test from ten to fifteen per cent depending to a certain extent upon the individual cow and the stage of her lactation period. The first milk drawn is very thin—that is, it has a very low test, and has a relative value in relation to the last strippings of about one to five. In a test we recently made the first half pint tested less than one per cent, while the last half pint showed a percentage of twelve-per-cent fat. This would make a pint of the strippings equal to six quarts of the very first milk drawn, or nearly two quarts of the average milk if the quality was four per cent.

Many argue that the quantity is so small that it is not worth the extra time required to secure it; yet if these same people could see a year's unsecured strippings in the form of dollars and cents they would think it was very good pay for the extra time required. The average milker on the general farm will leave half a pint at the least calculation, and many will leave more than that amount. If half a pint is left in the udder at each milking for a lactation period of ten months, or about three hundred days, the sum total will be about three hundred pints, or three hundred and fifteen pounds, which will contain about thirty-six pounds of butter. At twenty-five cents a pound the butter would be worth nine dollars, and this would be the extra pay for thorough milking, over and above the amount normally yielded. Now, then, does it pay and is the extra strippings worth the time required to secure them? Two minutes in manipulating and working the udder in addition to the regular time devoted to the milking is always sufficient to secure the last strippings, and usually less than this will do it. Even if it required two minutes to secure half a pint of ten-per-cent milk, the remuneration for this work would be at the rate of seventy-five cents an hour. While the quantity is small and in itself hardly worth considering, the quality makes the relative value pay one well for thorough milking.

The milking is a part of the farm work that it is easy to slight, especially when one is somewhat tired or in a hurry. In the morning, when the milk is to be sent to the creamery, there is more or less of a rush to get the milking done in order to get out into the field to work or on the way to the creamery; in the evening, after a hard day's work, it is harder to take the interest, and especially is this true with hired help. They may be in a hurry to get the chores done, in order to get started away to spend the evening in town, and say to themselves that no one will know the difference, the quantity is so small in relation to the total that the absence of the strippings

will not be perceived, and consequently I won't spend the extra time necessary to secure them. Farmers, and dairymen especially, should make it an object to their milkers to do thorough work. They should not expect the hired help to do ten hours of heavy work in the field and then take a live interest in the milking. The milking should have the same important place as any other farm work, and should be included in the day's work, not in addition to a full day in the field.

A cow should be milked rapidly and a sufficient length of time to secure all the milk. There is a great difference in milkers. One who understands it and is in practice can milk a cow in half the time required by those who perform the work mechanically and with no interest beyond the pay. He will not only milk the cow in less time, but he will secure more milk and accomplish more thorough results. A milker should have a natural liking for the work, which if he has will make the pay of secondary importance and the thoroughness his real object. It is not the work that makes the milker slight the milking, nor the labor that makes him slight the work in the field, but the lack of enthusiasm and of a live interest. It is a mistake to have a frequent change of milkers. If there are two men to do the milking, each one should have his particular cows each time, and not milk whichever one it happens until the milking is done. A cow gets used to one milker, and if a change is made she does not let down the milk so well; and a milker can milk the cows he is accustomed to easier, better and quicker than he can others.

Thorough milking cannot be done when either the cow or the milker is excited. If the cow is excited she cannot let the milk down, and quite a quantity will be left in the milk system; if the milker is excited, he will half do the work simply for spite, and if both the cow and the milker are excited, it is worse yet. A good cow usually has quite a nervous temperament and is easily excited. When the milker gets excited and is unkind to the cow, she invariably is excited to the same extent, but the reverse should not be true. A cow does not kick, nor is she disagreeable just for fun or to provoke the milker. When she seems so, she has sore teats or is afraid of the man. If he is always kind and gentle with her, especially when he is first breaking her to milk, and if, when the teats are cracked or sore, he doctors them, the cow will cause him no future trouble. There should be a mutual liking between the cow and the milker, and it is then that the cow does her best and the man his most thorough milking.

I have heard farmers argue that it doesn't matter if the strippings are not secured, that they will simply be left in the milk system and be there for the next time. This is true in a way, but just as untrue in the way the farmer's interest is concerned. Proper milking and manipulation of the udder will increase the total fat by the amount previously given, and, if anything, exceed this. The more regularly and thoroughly a cow is milked, the more she will yield,

both in milk and fat, and consequently the more profit she will make for the owner. This is not hard to understand when we consider that it is simply a law of Nature, that training and actual work give the strength for endurance and performance. If a man ties his arm to his side and does not use it, in a short time it will begin to shrink up and shrivel away. It is somewhat the same with a cow. If she is not thoroughly milked and with a degree of regularity, her possible performance will lessen.

In forming an opinion as to the importance of thorough milking, we should remember that the relative quality of the last strippings makes them equivalent and equal in value to several times their quantity of the other milk, and that thorough milking makes it possible for a cow to maintain her production to the greatest possible degree, other things being equal. The average milker is careless and there is room for a needed improvement in our thoughtless methods of milking.

LYNFORD J. HAYNES.

### Shire Horse Breeding

Few classes of stock owners can look forward with more confident anticipations than breeders of Shire horses. The heavy draft horse is far from being superseded on either road or field, and with the favorable sale records as a solid foundation on which to build expectations for the future, we can look forward with a reassuring and hopeful spirit.

There are two main sources of inspiration to breeders of high-class cart horses. In the first place, there is the important fact that powerful geldings have never been in better demand than at the present time. All through the past year the demand exceeded the supply, and the prices readily given were remunerative to the farmer who was fortunate enough to have the right class of animal to sell. Even moderate and second-rate geldings command a fair market; but there was the unusual marked difference between the realizing values of the first and second grades, and the observant breeder could again obtain from a study of the respective prices incentive to endeavor to produce the better-class animal.

It is not contended that uniform success can be guaranteed to any one, as even the most judicious enterprise is subject to disappointment and failure. At the same time breeders can do much in the way of reducing the risk of disappointment by the application of prudent liberality and discriminating judgment in the management of their studs, while it is perfectly certain that substantial success cannot be obtained in haphazard fashion. The best buyers insist upon plenty of bone and weight of body, and in these points the majority of Shires are up to the desired standard. There is room for improvement, however, in the quality and formation of the limbs, and also in the freedom and style of action, and it would be well if breeders of geldings were to devote a little more consideration to these qualities. As time goes on buyers will become more exacting in regard to their purchases, for although motor power has not yet to any appreciable extent interfered with the use of the best class of gelding, it is possible that, with the choice of two alternatives, a continuance of the demand for horses will depend to a vital degree upon the quality as well as the quantity of the supply. In the meantime there is no reason to anticipate any diminution in the demand; but, on the contrary, as I have already said, there never was greater encouragement to produce good-class animals of big size, weight and substance.

There is, in so far as the future can be foreseen, every reason for feeling assured of a liberal reward to the farmer who can place on the market geldings of the kind alluded to. It is hardly necessary to add that, in order to accomplish this object, or to reduce the risk of disappointment to a minimum, the services of high-class stallions, certified free from hereditary diseases, should be secured, while so far as may be practicable, the same exacting conditions should be observed with respect to the mares. But the stallions in particular should be of the very highest order, and now that the supply of such sires is sufficient to meet all requirements, there can be no excuse for negligence or indifference on the part of breeders, who, although they may not feel justified in incurring the expense of hiring these horses individually, can associate themselves into a horse-breeding club or society, and thus receive benefit by the co-operative system.

W. R. GILBERT.

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## Live Stock and Dairy

### Winter Care of Fall Pigs

FALL pigs are not the task to provide for that many imagine. Work with pigs depends on the accommodations at hand to help one with it. Fall pigs cannot be properly cared for all winter with a trough, slop pail and straw stack. They require more than this to do well, and in fact to do any real good at all.

No farmer makes a success of pig growing who is not properly fixed to care for them. Expensive houses and feeding apparatus are not necessary, nor are they at any time an aid to pork profits. A hog house must not be crowded with pigs and old hogs. It must shelter them well and contain enough animals for warmth and be large enough to cover the herd of breeding hogs and pigs that it is intended to keep.

Often a house used for twenty sows and litters in winter should be used for only half as many. Many farmers over-rate the capacity of their hog houses. In winter the pigs must be kept where warmth, dryness and sunlight are the paramount things.

Artificial heat is unnecessary, but a tight-walled house, dry floor and south-facing front will do much to make one think it is artificially warmed. Plenty of bedding, changed often, will keep the floor dry. Care in slopping the pigs will prevent the floor about the trough from becoming wet and unsanitary.

Troughs should be solidly fastened in, but yet removable for cleaning at any time. They ought to be so arranged that swill could be poured into them from the alleyway of the house. Greedy pigs would not knock the bucket from the feeder's hand if they are thus built.

For floors I prefer heavy plank, and want them off the ground about twelve inches. By banking up the sides of the foundation and letting the eaves be long and overhanging, there will be no winter mud holes about if the house is on a well-drained spot.

The south fronting of a house has much to do with its dryness. If the sunshine and warmth of all bright winter days can be admitted into the house and into all the pens, the floors will easily be kept dry, and hence be warmer for the sleeping pigs. Pigs should not be al-

### Separator Helps

THE milk will separate best when it is yet a little warm. It is better that it be warm from the cow than that it should be left to get cold, and then be warmed on the fire.

The separator can do better work and there will be less wear if it stands on a perfectly level base. It should be tried with the level occasionally, for the continual use of it is apt to get it to lean.

It is well to run a little lukewarm water through the separator just before letting the milk through. This will warm and wet the disks and all the inside working parts where the milk goes, and will prevent the cream from adhering to them.

GREGOR H. GLITZKE.

### Building Up the Dairy

THERE are a great many dairymen who do not really know the possibilities of their own herd; they seek to improve its value in milk production by buying new cows instead of improving the status of the ones they have already on hand.

Of course, new blood is to be desired if it comes through the pure-bred dairy sire that has made a record of breeding producers, but for the man of rather limited means much can be accomplished without the expense of buying pure bred at a high price, and then waiting for the new herd to grow up.

I think that a good plan is to study the requirements of the milk animals that one has. Give them first-class feed and care, and if they are good animals they will readily show themselves capable of producing a profit, and a man who cannot improve the yielding ability of a herd of common cows is only likely to make a failure of blooded stock.

I find that there are many gems among the so-called common cows, but the trouble is that their good qualities are never brought out, and they run their unprofitable course because their owners are careless men, and therefore do not care for them as they should, and under such conditions the pure-bred cow would be just as great a failure as the common cow.

Observe every animal in the herd with a critical eye. Offer her extra feed and

## DE LAVAL CREAM SCORES HIGHEST AT GREAT DAIRY SHOW

At the great National Dairy Show held recently in Chicago, cream skimmed with DE LAVAL separators won all highest honors. The cream exhibits were made in two classes and the winners in each were as follows, all being users of DE LAVAL hand separators:

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Head of Prize Brown Swiss Heifer, Illinois State Fair, 1908

lowed to run in slush and snow, but be given bright clover or alfalfa hay to munch away at. There is nothing that will bring brood sows through the winter and make fall pigs thriftier than good hay of this kind. It takes the place of forage in spring pastures.

The profit in fall pigs lies in keeping them thrifty in winter, keeping them growing so that spring will pick them up and carry them to a framework of bone and muscle that will be easily finished with good feed at two hundred to two hundred and fifty pounds each before the market goes down in summer.

WM. H. UNDERWOOD.

see if she will eat it; and if she eats it up clean and gives a profit, give her more.

Look about her bedding, ventilation and general comfort in the stable, and see that she does not have to stand in a bleak barn yard, exposed to the cold.

Do not compel her to drink from some pool of water in which the ice must be broken before she can get her nose down to the water. Would you like it?

If you will see that she is provided with some good, sweet ensilage in the cold days of winter, she in return will see that you are provided with the greatest profit that is to be made from her.

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# Poultry Raising

## Poultry Notes and Comments

WHEN we came on the farm, some twenty years ago, one of our little shavers used to like to "go visiting" to the sugar camp of a neighbor. Everything was new to him and he wanted to find out all about the why and wherefore of things. One day he came home a bit down in the mouth. His mother noticed it and asked if anything was wrong. The little chap finally admitted that the neighbor had not been very cordial, in fact seemed a bit crusty. Mother questioned him to know if he had done anything to make the neighbor out of patience with him.

"No," was the reply. "I just asked him a few questions." The questions were what had worn him threadbare.

But it never shall be so in poultry matters with us. Folks want to know how to win out. We do not blame them. If we can help them, we will do it. If we can't, we will say so, honestly.

A friend asks about trap nests and their necessity. They are handy, but folks have gotten along many years without them. If you have a small flock of twenty or so, by keeping a bit of watch you can tell which are doing the laying and which are soldiering on you. As a rule it is safe to say that when a hen gets to be more than two years old she had better be disposed of. It is the young hen that does the business.

Now as to the number of hens for a "colony." It is commonly agreed that twenty-five are enough for a single flock. An acre will furnish run for a hundred hens kept in such colonies.

For twenty-five hens five or six nest boxes are enough. Very rarely will more than that number of hens be inclined to lay at once. There is something queer about hens in this respect. Have you not noticed how long they will wait to get a chance to lay in a certain place? If anything happens to keep them away from that particular nest, they will hang around for hours, seemingly determined not to patronize any other nest. And it almost seems sometimes as if hens have a sense of the propriety of things which leads them to wait for one another in the matter of using the same nest. Now and then you will see a cranky old hen that will creep into the box with another who is already in possession of the premises. That most always makes trouble; for listen to the cawing and the scolding over the matter, until somebody must give up and get out. But generally hens wait for each other. So the number of boxes mentioned above is enough.

A friend asks how he may cultivate to the best advantage two or three acres of spare land in order to supply feed for laying hens and maturing chickens. If the land is not fairly rich I would try to make it so by applying a liberal amount of barn-yard fertilizer. Then I would plant an acre of corn. This is fine for hens. For winter feeding nothing is better than whole corn. Then an acre of oats would be fine. Oats are excellent for poultry. Then half an acre of barley and the same of wheat. If you could have a little patch of nice clover it would be good. Low land should be drained if possible. A simple rotation of crops would be best. Say corn one year on an acre, followed by oats, for oats do not do well on sod ground, then corn on another acre the second year, to be followed by the wheat and barley. A few cabbages are also fine.

E. L. VINCENT.

## The Poultry Guesser

IN A recent number of FARM AND FIRE-SIDE was an article, taken from an exchange, about "the trap-nesting farce." Since it appeared, quite a number of poultry raisers have written me asking me what I think of it. I think that all one needs to do to properly place the article is to read it closely. It is plain that the writer is not a skilled poultryman. He is a guesser.

I know that the trap nest has opened the eyes of many a poultryman, and it will open those of many more. The average poultry raiser thinks his flock of fifty hens is doing pretty well if he gets twenty eggs a day. He guesses all of them are laying, and he gives all of them the same good food and good care. If he would use the trap nest a week he would find about a dozen hens in the flock that are not laying an egg. And they would more than likely be the nicest-looking hens in the flock. If he would separate them from the layers he would most likely find that in six months they did not half pay for their board. Then as to increasing the yearly yield of eggs

by breeding from persistent layers, I know that it can be done, for I have done it. Not all the chicks from a persistent layer will prove extra-good layers. There will be some drones among them. There will also be some that lay about as many as the average hen. But persistent breeding from extra-good layers surely results in stock that is far superior as layers to the ordinary stock bred upon the usual hit-or-miss plan.

We all know how Jerseys have been bred up to large butter yield. Persistence along one line has shown marvelous results. Still there are Jerseys that are miserably poor butter yielders, but they are the exception, not the rule. We know how Poland-Chinas and Berkshires have been bred up to their present standard, and how careful the leading breeders are in keeping up the quality—the high standard of their stock. And we know how rapidly it will deteriorate in the hands of careless or ignorant breeders. It is the same with fowls. The greatest efforts of breeders of poultry have been directed to the production of perfectly colored feathers, and the exact shape prescribed by the Standard. This shape has been in the direction of more flesh on certain parts of the fowl, which is all very good. But very little effort has been made in the direction of breeding great layers, mainly because no prizes are ever offered for such stock. All the prizes, silver cups, trophies, etc., are given to fine feathers and shape, while breeding for egg yield is discouraged in every way possible.

The man who breeds for egg yield breeds for his own benefit along that line. Poultry raisers will buy his stock for breeding purposes only if it is fancily colored. As most layers are not fine standard birds, they are at a large discount in the breeder market. Some buyers are willing to pay a good price for them, but at present most people prefer fine feathers. What would people think of a hog breeder whose chief claim for the superior quality of his stock was based on its uniform color? Yet color of feathers is the chief stock in trade of the poultry fancier.

## Good Feeding Makes Large Yield

That hens can be bred up to large egg production I know to be a fact, but breeding from extra-good layers is of little use unless the stock is properly fed and cared for. Eggs are made from the food the fowls eat, and unless that food contains an abundance of the elements that enter into the composition of the egg the hen cannot produce them. My experiments with hens have satisfied me that they cannot stand a forcing ration very long at a time. To force a hen to a large egg production she must have an abundance of an easily digested and assimilated food, and she must not be supplied with this food in little dabs at stated periods, but have it before her all the time. When she stops laying, for a rest, her food should be made more bulky, so that it will satisfy her hunger and at the same time be easily digested.

When one is feeding a flock he cannot well cater to the especial needs of each individual hen, but he can provide a ration that will meet the varied requirements of the flock by feeding a bulky ration in the early part of the day, giving them sufficient to last until evening, when the concentrated, or egg-producing, ration is given. I never was able to discover any especial advantage in getting up before daylight to feed my fowls, then waiting until just before they went to roost and filling them up with grain. The plan that gave me the best results was feeding a bulky ration in the morning after sunrise, sufficient to last them until afternoon, then feeding a stronger ration some time during the afternoon, giving all they will eat before going to roost. It does not pay to stint at any time, and they should have sufficient in the morning to last until the feeders are again supplied in the afternoon. I found that feeding in this manner tended to keep the hens active until their afternoon feed was given, and that fully eighty per cent of their eggs were laid during the forenoon. Those not laying partook very lightly of the afternoon ration, while those laying steadily ate a good deal of it. The little that was left they cleaned up in the morning before feeding time.

To obtain large egg yield it is not only necessary to provide the right sort of food, but the fowls must also have plenty of shell-making material, and for this there is nothing equal to crushed oyster shell. For grit, small gravel is fully equal to anything to be obtained.

FRED GRUNDY.

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and Almanac for 1909 contains 220 pages, with many fine colored plates of fowls true to life. It tells all about chickens, their care, diseases and remedies. All about incubators and how to operate them. All about poultry houses and how to build them. It's really an encyclopedia of chickendom. You need it. Price only 15c. C. C. SHOEMAKER, Box 725, FREEPORT, ILL.

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### Latest Book "Profitable Poultry"

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## Poultry Raising

### Get the Incubator Ready

It is well to look over the incubator and get it in working order some weeks before we are ready to start it up. It is very vexing if we are ready to start the incubator, and then find that it needs repairing in some places; and it is still more vexing when we find that we have to send to the factory for the repairs, which may mean a delay of several weeks. To overcome this trouble, we should start in to get the incubator ready in good time. It may have been in running condition when we put it away, but by closely looking it over, one will always find something that needs fixing.

Rust works hardest on idle machines, and the incubator is not entirely rust proof. Also, some of the parts might seem all right to start up with, but if there is any doubt as to their holding out through the season, it is best to get new parts at once. It is no joke to have the incubator balk after it is once started. A batch of eggs spoiled in this way might be worth many times the amount the repairs would have cost in the first place, to say nothing of the delay. Have the incubator ready in time!

GREGOR H. GLITZKE.

### A Practical Poultry House

BECAUSE I have read of so many inquiries concerning the best kind of hen house, and as many answers, some recommending plenty of windows, others advising open sheds, I am prompted to describe the kind of house I build especially for laying fowls.

The one I last built was six by ten, and is now accommodating about fifteen hens. It cost, when completed, twenty dollars. The height of the back is three feet, of the front, five, with a long roof at the back and a short one in front. Six feet are left entirely open to the south, just covered with a netting, and having a netting door. Four feet are partitioned off, floored, and boarded tight, with a door in front, which has a six-by-ten inch pane of glass in it. This is all the window there is.

The nests are built against the partition, and project into the scratching shed, this part having a cover, for the convenience of collecting the eggs. Hens enter the nest to lay from the roost. The entrance from the scratching shed to the roosting place is at the front corner. Two boards, five feet by ten inches, are used to box up the corner. The top is left open. A sliding door is arranged so as to be raised and lowered. At night, after the hens have retired, lower the slide. The fresh air comes in, goes up the five-foot flue high above the roost; the impure air joins it and passes out of a hole in the gable, thus keeping the air sweet and pure, with no drafts on the fowls. The ventilation is simple.

The whole building is covered with roofing felt. A slit is made over the hole, and a little shed roof is made with felt. This same felt is tacked down as a carpet in the roosting room. To prevent drafts, the partition is also covered with the same. A little sand or ashes thrown upon the floor makes it easy to keep clean.

The fowls stay in the roosting quarters only to lay and at night. Put some dry sand and forest leaves in the scratching shed, and scatter their feed among the leaves. It makes an attractive place for them, and it is healthful; I have never known of a sick fowl kept in such quarters. It is also a veritable egg producer, and strong, healthy chicks are the result.

W. F. HENDERSON.

### Winter Nests

DURING the winter season is when the poultry keeper must be upon special guard, in order to keep the pestiferous lice and mites from gaining a strong foothold within the poultry premises.

It is compulsory at this season of the year for us to have our nests placed inside the poultry house, hence we take special pains to guard against the invasion of this vermin, by keeping the nests as sanitary as possible. Our method for winter nesting for past years has been to fill the boxes well up with ashes from the stoves, then upon this place a heavy paper mat, made from several old magazines, and thoroughly saturated with kerosene, upon which we sift more ashes, and fill the nesting material in on top of this insect-proof mixture.

Our nesting material generally consists of prairie grass or fine excelsior, which we secure at our local dish store in any quantity just for the asking.

We like this material, the latter pre-

ferably, as there is no chaff contained in it, as there is in wheat or other straw from the barn or stack; thus inquisitive pullets will not get into the nests and scratch them upside down in quest of shriveled grain.

Nests prepared in this way are sanitary and keep fresh for many months, and will not afford a lurking place for vermin.

We believe it pays to make the winter nests inviting and clean, for we have noticed a hen go onto a bare-bottomed nest, and after fussing about for hours, come off without depositing her egg; and the chances are that if she had, the egg would have been broken and eaten, thus inducing the habit of egg eating among the flock. GEO. W. BROWN.

### Among the Litter

Water your hens several times a day. Keep the water fresh.

The deeper the straw on the floor, the harder the biddies will have to work to get the grain you scatter in it, and it does them good to work, just as it does the rest of us.

You can't scare mites out of a hen house the first time. Give them several good thorough doses, and make them good and strong, too. No use to be half-hearted about it.

Many times it is found that by feeding the mash warm at night, and the whole grain in the morning, this also warm, the hens do best. This is contrary to the usual custom, but if you think about it you will see the philosophy of it. It is a good thing to send the birds to bed with a good warm cropful of supper.

Do your birds eat feathers? Then you may make up your mind that something is lacking in their diet. They never do that except when they are shut up and fed improperly. When out around in the open season they can get what they need to make a balanced ration. In cold weather you must supply these needed articles. You may have to cut off a few heads, for it is a hard job to break a hen of this habit; but the first thing you do, try furnishing some oil meal with the other grain feed. See how that works. You know, it is the new feathers, with the oil on them, that the birds like to pull and eat. Supply this some other way and you may break your flock of the practise, which certainly is a bad one.

E. L. V.

If you are one of our many readers who have long wanted a piano, but never been able to get one, here is your opportunity. Read our offers on page 28.

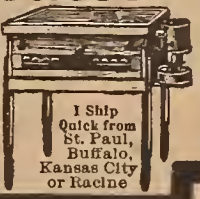
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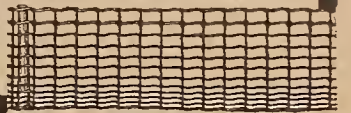


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We want every farmer, every dairyman, every ranchman, every poultryman in the country to write for the great "Jubilee Edition" of the Page Fence Catalog. It tells more important Fence Facts than were ever before printed in any catalog—explaining fully the process whereby Page Fence is made 50 per cent stronger, more elastic and rust-resisting than other wire fences. It will prove conclusively that Page Fence, though costing a trifle more than ordinary fence, is the most economical to buy and use. Address Page Woven Wire Fence Co., Box 65-N, Adrian, Mich.



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Whether your hens pay or not, is your matter, not the hens'. Well managed fowls return good money, but there's little, very little, in such unsheltered, storm-pelted things as are often seen on the sunny side of a barn in January.

If you've neglected your hens, if you think there's "nothing in 'em"—Now is the time to get a new view-point and learn how easy it is to make them pay for a little care.

Begin then, before your losses grow larger; give a warm mash once a day with a little of Dr. Hess Poultry Pan-a-ce-a in it, and you'll very soon think hens are good property.



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Makes poultry keeping a paying business, because it does what nothing else will do—strengthens and tones the digestive organs up to a point where there is very little food waste. That means that the corn and meal you feed are put to use—assimilated and made into eggs and flesh. This is "THE DR. HESS IDEA" and for this purpose he formulated his Poultry Pan-a-ce-a. There are in it bitter tonic principles and iron, the blood builder, and necessary nitrates to keep the system free of disease breeding poison.

Poultry Pan-a-ce-a, given as Dr. Hess (M.D., D.V.S.) directs, increases egg production wonderfully. When you have fowls to market, it fatts them (by increasing digestion) better than anything else and no other preparation is as good for young chickens. It also cures gapes, cholera, roup, etc.

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Here is the prescription stockmen need to prevent indigestion and loss of appetite in animals. Digestive disorders are a common trouble when feeding for market, because animal organs are not strong enough to bear unaided the heavy strain put on them by double rations. This is "The Dr. Hess Idea." He believed it possible to give a tonic that would maintain digestion at a maximum performance, which of course means a steady gain every day. Thousands know by experience that this is so. The best medical men in the country endorse Dr. Hess Stock Food and it is sold on a written guarantee. The dose of Dr. Hess Stock Food is small and fed but twice a day.

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Cried the Owl  
in the woods  
As darkness  
closed around him  
Bang! went a gun  
To Whit-To Whoo-o  
The man with a  
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Your bird will drop every time, when you pull trigger on a Stevens Rifle or Shotgun.

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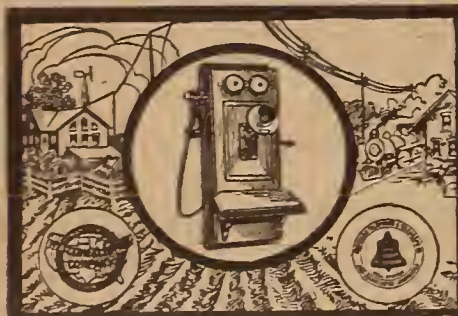
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But the quality of your telephone must be good.

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## Farm Notes

### Plan for Home-Made Spraying Outfit

**M**Y SPRAY pump cost me eleven dollars. One not so powerful was priced at forty-five dollars. Any workman who is handy with tools can put it together in a day. It has proven so valuable that I wish to make it known to everybody. It was assembled from the following: One riding-cultivator frame, pole and wheels (old scrap iron); one good coal-oil barrel, one dollar; one three-inch cylinder cast-iron force pump, six dollars; one two-inch plain brass cylinder and valves, two dollars; one piece of good three-fourth-inch hose and spraying nozzle, two dollars. Total cost, eleven dollars.

After putting the above material together I found I could get easily a pressure of one hundred and fifty pounds to the square inch, a very necessary prerequisite in order to apply the Bordeaux mixture with the right force.

Directions for assembling are as follows: Take the valves out of the cylinder of any cast-iron force pump; replace these valves with the two-inch plain brass cylinder and valves; cut off with a hack saw the two-inch cylinder to the right length to just fill the cast cylinder. Fill in the space between the cast cylinder and the brass cylinder with plaster or cement, being sure that the brass cylinder is in the exact center of the cast cylinder. Attach the plunger valve of the brass cylinder to the plunger piston of the force pump and couple up the piston to the handle of the pump so as to get a full stroke. As only a small amount of liquid is needed in spraying, the object of this reduction of cylinder is to lessen the flow and increase the pressure. The reduction of from three inches to two inches brings the flow down half and the pressure is doubled. Mount the pump on the barrel and the barrel on the riding-cultivator frame.

Make an agitator as follows: In the barrel near the bottom on the end or head hang with a T-hinge a board made of oak, one inch by six inches by two feet, to swing up and down with the stroke of pump, the board to be connected with the pump plunger by a steel rod. The steel rod enters the barrel through the opening made to pour in the liquid, and is connected with the plunger piston at the top of the piston and with the board below by two jam nuts.

I now spray my hen house with lime and coal oil at the rate of one hundred square feet a minute. It makes a good job at whitewashing, and is death to bugs and microbes on my fruit trees.

CHAS. A. UMOSSELLE.

### No Parcels-Post Legislation

**S**OME politically inclined gentleman asks me why I am not demanding a parcels post, now that Congress is again in session. For the time being parcels post and safe bank deposits are slumbering, and will continue to slumber for, probably, some years to come. We cannot get even a rural parcels post. Farmers want it, but will not take the trouble to demand it, so it lies quiescent.

One of the paid emissaries of the express trust came around a few days ago organizing retail merchants against any kind of parcels post, and every one joined the organization, and they are constantly on the alert to head off any threatened legislation in the direction of any sort of a parcels post, unless it be to some foreign country.

There is a deficit in the post-office department this year of sixteen million dollars, and this fact is being effectively used against parcels-post legislation. The reports of the workings of parcels post in all foreign countries show plainly that such a deficit as this would be impossible if we had this great convenience here. But the organization of retail merchants who are determined to make people buy everything they use from them, together with the express trust that fattens on the plain people, and by manipulating congressmen, as they know how, will effectively prevent any legislation in the direction of a fair parcels post.

FRED GRUNDY.

### Experimenting With Fertilizers

**I**T is impossible for a farmer to tell just how much fertilizer is needed for his land; therefore it will be a good idea for him to experiment with it some year. If he gets too much, the corn or wheat will burn out badly, and if there is too little, there may be no visible increase of the crop. One man in Missouri last year experimented with bone meal, and learned

about what his farm needed to the acre. Here is what he says: "Last year I tried seventy-five pounds to the acre on part of a field, one hundred pounds on another and one hundred and fifty on another. The one-hundred-and-fifty-pound strip started off the best, but before the season was over the corn fired badly. I concluded it was fertilized too much. The one-hundred-pound strip made the best corn in the field and seemed to have about the right amount. Seventy-five pounds was hardly enough, judging by the way that the corn grew in that strip. My experiment proved to me just about what was needed."

W. D. NEALE.

### Secretary Wilson's Annual Report

**A**FTER nearly twelve years of service Secretary Wilson has now presented another annual report, which in point of interest and encouragement to the American farmer is not likely to be soon surpassed. The progress that has been made in agricultural matters in the United States has attracted unusual attention all over the world. Quite recently the Minister of Agriculture of Argentina has put into successful operation an agricultural system of education similar to that which is now being carried on in the United States.

With a pardonable degree of enthusiasm and optimism, the secretary makes known the steady advance that has been made in agricultural progress and wealth since he became secretary of the Department of Agriculture. Exceptionally good results have been attained by the department concerning the causes of and cures for animal diseases. The cause of hog cholera having been discovered, a cholera serum was prepared, and its use has demonstrated that it is a practical, trustworthy and cheap preventive of this disease, which causes the loss of millions of dollars annually. The inspection of meats has led to a greatly increased foreign demand. The scope of the work has been enlarged to include the supervision of the preparation of all meat food products and the sanitary conditions under which they are produced, as well as the thorough inspection of the animals for disease before slaughter and at the time of slaughter.

The report of Secretary Wilson indicates how well the work of the Department of Agriculture is being conducted. Some of the objects already attained are the acquisition and dissemination of reliable information respecting agriculture in general, and particularly animal husbandry, dairying, horticulture, viticulture and forestry. This will inevitably lead to better and more profitable production, and at the same time so improve the soil as to leave it a priceless inheritance to those who are to become the future owners of the land.

It is largely due to the United States Department of Agriculture, the agricultural colleges, experiment stations and farmers' institutes that the average yield of crops is being gradually increased. This has been brought about by better cultivation, better seed and a better system of rotation of crops which are specially adapted to the locality and soil. More farms are now being cultivated scientifically than ever before. The agricultural department last year sent out more than sixteen million five hundred thousand pieces of literature containing the results of the researches of nearly three thousand specialists. The purpose of all this is that the farmer may get higher profits from his labor and his soil, just as the factory man is getting a higher profit from his labor and his time because of the use of improved machinery and technical skill. The practical experiments that have been made by experts in agricultural science, and those instituted for the extermination of noxious insects and fungi, are making agriculture so much more profitable and efficient that that production is likely to keep pace with our ever-increasing population. Take it all in all, the report of Secretary Wilson is one of unusual interest and admirably covers an ever-widening field of agricultural research and scientific inquiry.

W. M. K.

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"UNO"**

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CONFORMING

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COLLARS**

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Send us the name of a harness dealer who does not handle "UNO" Horse Collars, and we will send you a beautiful pair of Nickel Embossed Bridle Rosettes, FREE.

Our booklet, "Horse Collar Sense," gives you some valuable pointers on how to judge and buy horse collars. Free on request.

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**15 Cents a Rod**

For a 22-inch Hog Fence; 16c for 24-inch; 19c for 31-inch; 22 1/2c for 34-inch; 25c for a 47-inch Farm Fence. 60-inch Poultry Fence 27c. Lowest prices ever made. Sold on 30 days trial. Catalog free. Write for it today.

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## Farm Notes

### Sowing Grass Seed

MANY farmers are no doubt contemplating the sowing of grasses the coming spring and are at a loss to know what kind should be sown for different purposes—for meadow, for pasture, for seed—and how much of each kind to sow to the acre.

In selecting seed for the meadow it is an important matter to choose grasses that will be at their best. By this I mean those that will be in full bloom at about the same time. However, it is not always possible to do this, for in some sections the range of selection is rather small. One may sow red or alsike clover with timothy, and while it is not possible to get them at their best at the same time, there are so many reasons which justify the selection of these grasses that it is probably the best selection that can be made for the average farm.

I would not use mammoth clover with either of the clovers above mentioned, for the reason that it is from two to three weeks later. It is at its best when timothy is at its best; but on rich soils mammoth clover grows so rank and makes such an inferior quality of hay, that notwithstanding that it matures about the same time as timothy, it is not advisable to sow it. For lands naturally thin or that have been badly worn there is nothing better than this combination of mammoth clover and timothy.

### Grasses for Meadow and Pasture

Another combination for meadow is common red clover and orchard grass. Orchard grass is somewhat earlier than the clover, but it needs to be cut early, in order to prevent its becoming woody. A combination of these two grasses will make the best aftermath that can be grown anywhere in the country, as it would be practically drought proof.

Alsike clover, redtop and timothy would make another fine combination for meadow, provided the redtop is not allowed to go to seed. There are sections where special conditions prevail where other combinations might be formed; but these, I believe, will cover the great majority of the sections where grass is grown for the purpose above mentioned.

If grasses are sown for pasture it is desirable to have them in full bloom for as long a period as possible. Therefore, if I were seeding for pasture I would use timothy, common red and mammoth clover; on all wetish lands that for some reason refuse to grow red clover I would use alsike.

For permanent pasture—that is, for lands that are not in the rotation at all—I would use every kind of grass that grows, or that can be made to grow, in that particular region, of which seed can be obtained pure and at a reasonable price.

I would by all means use the mixture first suggested for lands that are to be pastured in rotation, and would add to this a small amount of blue grass and white clover. For permanent pastures I would reseed to clover every two or three years, in order to maintain the fertility of the soil and to supply forage for the period of the year when the blue grass is sleeping, which is from about the middle of July to the middle of September.

### Sowing the Seed

The next problem is how much seed to sow. I would sow eight pounds of common red or mammoth clover with about ten or twelve pounds of timothy. This may seem to some to be rather heavy seeding, but it is not too much. Land on which clover has never been grown before, it will not be amiss to sow ten or twelve pounds of clover seed to the acre.

A careful preparation of the ground is a very necessary feature, in order to secure the germination of all the seed. Seed can be saved in the first place by preparing a first-class seed bed, then securing seed that is known to be germinable—seed that has a germination power of at least ninety-five per cent—and by giving it sufficient covering to insure germination. Seeds should never be figured by measure, but by weight, and it should always be estimated that it requires only half as much alsike as common red or mammoth to make a full seeding, on account of the alsike being smaller. In other words, if I wanted a mixture for pasture I would sow about three and one half pounds of mammoth, three and one half pounds of common red and about one and three fourths pounds of alsike.

Some may desire to know why I rec-

ommend sowing timothy with clover. There is always more or less danger of failing to secure a stand of clover, and I advise sowing timothy, of which it is easier to secure a stand, so that in any event the seeding will not be entirely lost; and for the further reason that clover is a biennial, that two thirds of it must be expected to die during the second winter, no matter whether the winter be mild or severe. By using timothy a good stand of grass is secured the next year.

Now as to the depth of covering the seed, that will depend on local conditions. It should be borne in mind that all grass seeds, and all other seeds, for that matter, must have as an absolute condition of growth three things, not one or two of them, but all three—heat, air and moisture. The summer will give the heat; thorough preparation of the seed bed will give the air; the intermediate factor is moisture. All grass seeds must be put deep enough in the ground to secure moisture for prompt germination, but not so deep as to exclude the air. Under certain circumstances clover may be sown and harrowed in; under other conditions it should be put as deep as the grains with which it is sown. The range of sowing under these various conditions is from one half to three inches; and of this the sower must be the judge, as he alone knows the conditions. One of the nice points about securing a stand of clover is to give it the right kind of covering.

### The Nurse Crop

As to nurse crops, there are sections where the grasses are best sown alone, and that is in those sections where the rainfall is from twenty to twenty-five inches. In the humid sections a nurse crop will be had, whether one is sown or not, and it is simply a question of whether some early spring grain is to be used and stand ready to mow it for hay if necessary, or have a nurse crop of weeds. If it should be mown it is always better to mow something that is worth raking up.

The amount of seed to sow for the nurse crop must depend on the capacity of the land to produce weeds. In some sections a bushel of oats is about the right amount to the acre; in others, two bushels and even more are necessary.

In selecting seed for a nurse crop the earliest should always be secured, and especially in the case of oats, for the reason that oats draw heavily on soil moisture. Besides, any nurse crop, whether weeds or grain, will to some extent interfere with the development of the clover. Therefore it is necessary to have it removed as soon as possible, in order that the grass plants may secure a vigorous habit of growth before the heat of summer comes on.

WM. H. UNDERWOOD.

### Potato Scab

J. H. D., of West Hanover, Massachusetts, says that when he plants potatoes where hen manure has been applied they are very scabby. I have had very little trouble with scabby potatoes, although I have used hen manure in the hills for a number of years.

On page 119 of "The Potato," by Samuel Fraser, he says that an acid condition of the soil is injurious to the growth of scab. Lime, wood ashes and stable manure aid the growth of scab, while sulphate of ammonia, muriate of potash, sulphate of potash, kainit, acid phosphate and dissolved bone render the soil less favorable to the disease.

Scab is a fungous disease due to bacterial growth in the soil. If the soil is inoculated with scab the hen manure aids its growth, but if there is no scab in the soil, and the seed potatoes are free from scab, I think he would have no trouble with scab if he uses hen manure in the hills. Treating the seed with formalin will kill the scab on the seed. This is done by soaking the seed in a solution of formalin—one pound of formalin to thirty gallons of water—for two hours. Soak the potatoes before cutting them, and if not planted at once, spread them out to dry.

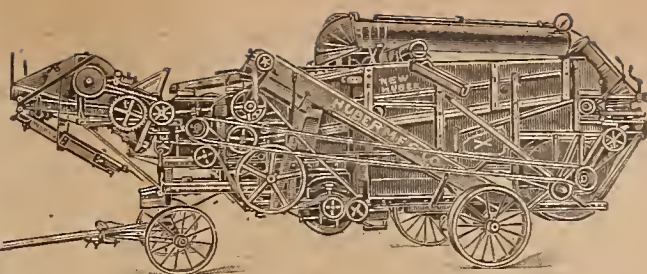
It is claimed that scab germs will live in the soil without any known host for five or six years after a crop of scabby potatoes has been harvested.

Mixing acid phosphate with the hen manure has a tendency to reduce the scab, and it also improves the quality of the manure.

A. J. LEGG.

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## The Open Window

IT is a safe statement that pure air is one of the prime necessities of life. Any one disputing this has only to stop breathing for a few minutes to be convinced. It is also about the only necessity of life to be had without labor. Water, which comes next to it in value, has to be dug for or has to be toted into the house either by hand or by engine, and the amount of hard work required to grow and prepare food is probably better known to the farmer and his wife than to anybody else on earth. But pure air is easy come by, and probably that is why it is little prized. Or priced. Same thing.

At odd moments, when we are more or less free from the madness of money, we perceive that the true test of Value is the amount of life support an article contains, but most of the time we have to estimate things by the scale of dollars and cents, that being the only standard allowed to us by our rulers, the dollars-and-cents men, the price makers, who have the say rather than the goods makers. But just about this season of the year the particular set of goods makers to whom these words are addressed have less occasion to distract themselves with the reflection that skill in price making has got skill at goods making beaten a mile, and can spare the time to consider the real value of the one necessity of life that has no price tag on it.

Just about now, too, the Tuberculosis Exhibition in New York City will have closed, after having been visited by some eight hundred thousand people, which is quite a crowd, come to count them up. It is especially quite a crowd for a show in a city full of shows exciting, laughter provoking, noisy, lively and foolish—all that most folks require in a show, whereas this was serious and still and only explained how to cure consumption. There were no rows of bottled stuff to be well shaken before taken, for Sure Cures for Consumption are too much like cold-blooded murder and daylight robbery for decent people to have any part in. No. The main reliance in the cure of consumption is fresh air, the kind that grows right outdoors, the wild variety. To be sure, eggs and milk of the quality that city people have to pay sixty cents a dozen and twelve cents a quart for, help along, but the constituency of FARM AND FIRESIDE take those things as much for granted as life itself. However, when it comes to the principal element of the cure—Well, you know the old saying that the reason why the air in the country is so excellently fine is that the farmers keep all the bad air shut up in their houses instead of carelessly letting it run loose. In these days of well-made houses, tight as a bottle, equipped with slow-burning stoves, if a body is careful and always thinks to shut the door after him it ought to be possible to keep substantially the same air in the house from about Christmas until, say, well along in March, breathed over many, many times and tolerably well thickened with human exhalations. One way of looking at the matter, this is just the way to do, for it helps to keep the house warm and cozy not to change the air in it very often. And, as is well known, there isn't any greater misery than to be all over goose flesh for any length of time. But there is such a thing as paying too high a price for warmth and coziness, not alone in coal, but in coffins. These exhalations of the human body are rank poisons and kill folks, not so swiftly as dog buttons, perhaps, but certainly as dead. They pull down the health and weaken one, so that the first wandering infection that comes along looking for a situation finds it. Colds are infectious as well as mumps and scarlet fever, and a particularly "hard" cold has almost certainly some germs of consumption among the lot implanted. If you are in fine physical condition you can "throw it off," as the phrase goes, as you can any infectious disease, unless too large a batch of germs has made a landing. So that, far better than all the cough cures (mostly morphine and cocaine compounds, and very dangerous), is keeping yourself in good health, so that your body can do its own doctoring, which it can ordinarily do if it has a good chance. That is what they depend upon to cure consumption, or any other disease that is to be cured at all.

Food is necessary to strengthen a man. We all know that. We all know, too, though we don't act on the knowledge any more than we can help, that oxygen is as much food as anything that we cut up on our plates and fork into our mouths. In the hot summer weather a good breeze blowing through the house is much more popular with us than the same sort of breeze when the thermometer is on the frosty side of zero. And yet delicate consumptives do very much better out of doors when the weather is extremely cold than when the air is soft and balmy. There is so much more oxygen to the lungful when the air is all shrunk up into itself, and the body is thus enabled to make a winning fight against the germs.

However, it is quite out of the question to have the winter's blast romp through the house when there are so many tasks to be done that call for nimble fingers. We can't go bundled up all the time! But after we hop into bed at night, all we have to do is to lie still and wait for the roosters to crow. There are bed-clothes a-plenty to keep us warm, so let us have the bedroom windows open. Open, if you please; not a stingy little knife-blade crack, which gets the room just as cold by morning without the purity and life-giving freshness that comes from a whole-hearted hoisting of the sash as far as it will go, but a resolve that for eight out of the twenty-four hours you'll breathe the outdoor air that you were meant to breathe twenty-four hours out of the twenty-four.

This doesn't mean that any one should try to sleep cold and shivery. Sleep warm. Which does not mean that you should pile the clothes on top of you until their weight stops the blood from circulating. It's what you have under as well as over you that counts. Maybe it isn't very stylish nowadays, but when the snow squeals under the sled runners, and through your open window the stars are brighter and sharper than their wont, a good old-fashioned feather bed won't go so bad.

And when you waken up after such a night you're all done sleeping. Maybe you don't jump out immediately, but that's because you hate to put your pretty pink toes upon the frosty floor, and not because you'd like to turn and take another nap. You're all done sleeping. The job's completed.

And those eight hours of pure, clean, lively air at every breath beat all the drug-store tonics and blood purifiers ever stewed up.

\* \* \*

## Random Notes

One of the most important crops this country can produce we cannot brag about in our agricultural reports, and that is the crop of men and women. Less and less they are home grown; more and more they are imported from the old country. An infant industry worth fostering.

\* \* \*

Experience has taught that the most successful and practical way to fight disease in plant or animal is to aid Nature in producing disease-resistant strains. An example of this is the rust resistance of some varieties of wheat which have been produced by selecting seed from unaffected plants.

\* \* \*

If all the enterprising boys who have left us for the city could have made as good a living farming and increasing the nation's wealth as they have made merchandizing and acquiring the nation's wealth, it wouldn't be quite so lonesome in the country, nor quite so crowded in the city.

\* \* \*

Nicholas Tchaykovsky, the grand old man of the Russian Revolution, now out on bail of fifty thousand rubles, charged with the hideous crime of wanting his country to be free, employed his leisure in Troubetskoi Prison at compiling a booklet for the Russian peasant on H. W. Campbell's system of dry farming. Thus is Samson's riddle once more exemplified: "Out of the eater came forth meat." Out of the prison which devours men comes that which feeds the hungry.

## Back Talk to Lewis

## Letters From Readers

EDITOR OF FARM AND FIRESIDE:—

In "Back Talk" a reader is exercised because the President's move to inquire into the condition of the farmer by the Country Life Commission has been branded by some one as political. And the reader adds to his complaint the charge that those who accuse the President are political tricksters. But the reader's letter allows it ought to be political. It must be to amount to anything!

My Oklahoma friend says the object in view by the Country Life Commission is "simply" to guarantee to the farmer the same privilege, and give him the same encouragement through legislative acts that other classes of men have enjoyed." Why, that is simon-pure politics. That procedure would overturn the so-called protection policy and spread out into a million channels the distribution of wealth profit. Monopoly enjoys class legislation, with all the privileges and all the encouragement. Farmers were not guaranteed that, as my friend naively acknowledges. But monopoly bought the privilege with powerful lobby, with fortunes in retainers and by campaign contributions.

But will farmers take a hint and "help to help themselves"—stand as a unit, and pay a lobby like business men, for reform of the laws which rob the farm?

Farmers pay tribute in hard-earned cash to monopoly. It recoups on every implement the farmer buys, in charging him double the price obtained abroad. Monopoly may or may not make profit beyond the sea, but it is "encouraged" to get a big double profit at home. The farmer even pays many other people's tribute to monopoly; the thing is passed on to him and he cannot square himself with a reprisal. Will farmers demand legislation making the export price on all farm machinery the maximum price to home farms for benefit of national farm industry, so much in solicitude?

But can the farmer get recognition in these very moderate measures by silent, slavish expectation that the onlooking mighty business and political world will have mercy and reach down to him a real material aid? Will a wing of the Republican or Democrat or some other party aid him? What's the use? The farmer will not organize his giant strength. He is awaiting to be coddled.

And this from Oklahoma!

"Let us welcome any aid, and let us cheerfully grasp any helping hand extended to us, to aid us to rise to a more exalted life."

Well, this confession is some better than the silly bravery you often hear: We farmers are all right, we have pure air, and pure food, and we are so independent, and—

New York.

W. L. DEVEREAUX.

\* \* \*

EDITOR OF FARM AND FIRESIDE:—

I am very much interested in Mr. Lewis' articles, "Politics." Farmers are inclined to think more of their parties than they do of their own welfare.

Should you bunch up a dozen farmers and ask them to state the difference between an ad valorem and a specific duty, you might find one in the dozen who could answer your question, and again you might not. Party papers are not to be depended upon. They are too willing to represent or misrepresent as best suits the success of their party, and truth is not one of their virtues. I believe the sooner we farmers cut loose from all political parties, the better it will be for us; and again, if we have no other means of instruction than partizan newspapers, we shall certainly be misinstructed. So let Mr. Lewis uncover the rot, and so long as he does so without showing a partizan spirit, I shall read his writing with a relish.

Kansas.

J. M. HAMMER.

\* \* \*

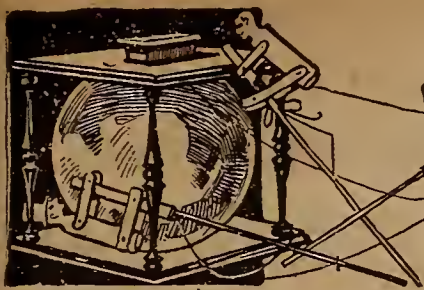
EDITOR OF FARM AND FIRESIDE:—

Your paper is right in every department. Give us more of such writings as Mr. Lewis and Mr. Pinchot. In other words, give us all the information possible on the subjects of politics and forestry.

Illinois.

EDWARD J. DOOLEN.





# Politics

By Alfred Henry Lewis



DOWN IN WASHINGTON THE OTHER DAY I arranged to meet the Hon. Champ Clark. He had just been chosen floor leader of the House Democrats, and I thought it worth while to look him over and report for the benefit of the readers of FARM AND FIRESIDE.

Every impression I gathered was in favor of Mr. Clark. His atmosphere is confident, begets confidence. Lean of flank, narrow hips, cloth-yard shoulders, long, slinky, powerful arms, six feet tall and more, he has the build of an athlete. His manner is military, his eye the gray eye of command. He gives you the impression of passing most of his life on his feet. Preeminently he is the sublimation of action—quick to see, to command, to lead.

If I were to read the man, I should say that Mr. Clark, while easy to convince—if you have the arguments—is far from credulous. He detects humbugs. He is strong willed without being obstinate. He has a clear conception of what he wants, and why he wants it, and how he means to get it. But there is no trace of the pighead. Likewise, he is a horse to work—deep lunged and tireless—a Corliss engine in frock coat and trousers. His heart is kind, his temper gunpowdery; and because he has—as editor, lawyer, school teacher, merchant, lecturer, politician—met and managed all kinds of men, dog men, pig men, pouter-pigeon men, cock-robin men, man men, he is catholic in his tolerations.

Mr. Clark was born in Kentucky—Anderson County. That was fifty-eight years ago. His father was a Jerseyman and a dentist. On his mother's side he comes of those Huguenots whom Louis XIV., the Grand(?) Monarch—guided by a woman and a Jesuit—so generously drove into England, Holland, Switzerland, America.

Instructing myself to what extent I might, I had asked—prior to meeting Mr. Clark—a careless question or two of a gentleman who was his intimate.

"What of his temper?" had been a query.

"Clark is not ill tempered," returned the gentleman, "and yet I should call him irritable."

This description pleased me. An irritable, cross-grained, stubborn man is always honest. He goes making no plots, setting no snares, arranging no dead-falls. I have met hosts of false, cunning, selfish, scheming, trustless men. One and all they were smooth, oily, plausible, agreeable, beaming, affable. Bowing and scraping—the last thing they could be charged with was irritability. They no more lost their temper than they told the truth.

Still, looking for the porcupine in Mr. Clark, I cannot say that I found quills. Rather he furnished the thought of a nature well up on the bit, like a high-mettled horse; but I traced nothing of irritability. His blood is too red, his stomach too sound, for that. He will rush upon his work like a soldier storming a fortress; he will despise a coward, denounce a laggard, but there will be nothing of narrow peevishness—no spites, no hateful littlenesses. Out West, as you know, when they aim to describe a gentleman as sound in every virtue of honest, unflagging comradeship, they say, "You could cross the plains with him!" After a careful survey, I must believe that you could cross the plains with Mr. Clark.

\* \* \*

WHILE IN THE CAPITOL, I thumbed the button of a Senate elevator. It presently went by me like the idle wind, paying no heed. It had a senator aboard. You will recall how, in a recent number of this paper, I explained this Senate trick of snubbing you, elevator-wise, as it were. It is by Senate rule, and meant to be just no more, no less, than so much mute if exasperating testimony to the greatness of senators.

As I stood patiently waiting until the vanished elevator should be free of senators, and so find it possible to stop and take me aboard, I recalled a comedy, which might have become a tragedy, transacted in that very Senate corridor a decade and a half ago.

Mr. Hutchinson—from the Houston district, I think—came to the House from Texas. He was lean, clean, rich, wise, white of hair and character—a thorough Southern gentleman! Mr. Hutchinson was polite to a scruple, and looked for politeness in return. Also, he had been taught from infancy that under certain insolent conditions a knife or a gun was the logic of the situation.

While as yet in darkness touching Senate observances, Mr. Hutchinson came over from the House to pay his austere brother publicists at the Senate end a visit. Being on a middle floor, he pressed the button

If you don't agree with Mr. Lewis, "talk back" to him, confining your reply to two hundred words. We shall hope to publish some of these replies from time to time.—THE EDITOR.

and invoked that same elevator for which I waited. A moment later, the cage—as in my case—flashed by him like a ghost.

Mr. Hutchinson batted his amazed eyes. There had been no such inattention paid him at the House end, where the elevators still retained their democratic sanity. Again Mr. Hutchinson jolted the button and started a second charivari on the elevator bell, hoping better things. It was as before. Again the swift-descending elevator flew by and left him glaring.

Five times, up and down, did that conveyance insult the waiting Mr. Hutchinson. The sixth trip, there being no more senators to carry, the cage stopped, the door was flung wide. Instead of entering, Mr. Hutchinson expressed his feelings.

It was in the midst of Mr. Hutchinson's timely remarks that Mr. Bright, at that time Senate sergeant at arms, drew near. Mr. Bright did not know Mr. Hutchinson; Mr. Hutchinson did not know Mr. Bright. The latter, after listening a moment, interrupted to explain his own eminence, and impress upon Mr. Hutchinson that the erratic character of the Senate elevator service was by his, Mr. Bright's command. With that, Mr. Hutchinson transferred those opinions, which he had formulated concerning the elevator man, to Mr. Bright.

Mr. Bright *ex-officio* was many wonderful things—a kind of Capitol Pooh Bah. Among the rest, he was chief of the Capitol (building) police—a doughty band. In the height of Mr. Hutchinson's eloquent views and their expression Mr. Bright motioned to one of those blue janizaries.

"Put this man under arrest!" said he.

Mr. Hutchinson's next move showed him not wanting in that military instinct which in maneuvering sticks always to the high ground. Mr. Bright's command was hardly uttered before Mr. Hutchinson had him by the lapel. At the same moment a truculent knife gleamed in the hand not busy with the lapel. This weapon Mr. Hutchinson flashed before the eyes of Mr. Bright.

"If that officer lays hands on me," said Mr. Hutchinson, "I'll cut your throat." This to Mr. Bright. Thus they stood; Mr. Hutchinson in control of the situation.

There was silence. The bluecoat, police janizary, full of the wisdom which belongs with folk in lowly places, walked away. Thereupon Mr. Hutchinson released Mr. Bright, who stepped deftly into the elevator and was borne to a floor of safety. Being for a sixth time abandoned of the elevator, Mr. Hutchinson walked back to the House in a puzzled way, to tell his friend and colleague, Mr. Sayres, his troubles.

\* \* \*

THE PEOPLE OF THE LAND are being blood sucked to death by the big companies. As solving, if not curing, one bank-inflicted wound, I urged you in these recent pages to fall letterwise upon the flanks of your congressmen, and demand the postal savings bank. As long as you are going to write these statesmen it might not be amiss to tell them that another commodity for which your drained destinies are crying is the parcels post.

We call ourselves as a nation a leader in political thought. I shall soon begin to believe we have caught the tail of the procession. Here we are, begging our congresses for postal savings banks and parcels post—and being refused—when every country in Europe, to say nothing of several in semi-barbarous Asia and savage Africa, has had these blessings for years. It may entertain you to know that a man in London—England has the parcels post, and we by our treaty accept her mail, as she does ours, and deliver it—could send you a ten-pound package cheaper than could a man in the next county to your own, not, perhaps, ten miles away.

The parcels post, in its detailed and practical expression, was set forth in a measure offered, and neglected to death, last Congress. By the terms of that bill any package or parcel weighing not over eleven pounds might be sent through the post office. The charge for postage was to be one cent to three ounces, two cents to six ounces, three cents to nine ounces, four cents to twelve ounces, five cents to one pound,

and two cents for each added pound until the eleven-pound limit was reached.

The good which such a law would invoke cannot be imagined too broadly. It would put farmer and customer, producer and consumer, within reach and touch of one another. It would eliminate superfluous express companies which now act as middlemen, and squeeze producers with the right hand while squeezing consumers with the left.

Given the parcels post, the producer would get more for what he sells, the consumer pay less for what he buys. The express companies would do the losing—the express companies, which lap the cream from every man's pan of milk.

About the halls of Congress the express company influence sets its hungry face like flint against a parcels post. Do not underestimate the power of that influence. It has thus far been easily equal to controlling congressional action.

\* \* \*

FAR BE IT FROM ME TO SPEAK bitterly of folk in high places, but as a profound student of government and the watchman on the walls thereof I am driven to say that you must deal with politicians as you deal with pigs. Go confidently among them, a club in one hand, a pailful of druff in the other, and have it understood that they may take their choice. Thus, and thus only, will you—through the actions of politicians, *vide licet* congressmen, judges, presidents and other whatnot of office—come into your kingdom.

Over at the House end of the Capitol, Chairman Payne and his tariff colleagues took millions of words of tariff testimony, ninety per cent of which told everything except the truth. The producer, the man whose pockets tariff fills, was voluminously listened to. The consumer, the man whose pockets tariff empties, wasn't heard at all. Still, it will cut no disastrous final importance. It might do so, were it Mr. Payne and his Republican colleagues of the Ways and Means who really make the tariff bill.

Which it is not.

Who will make the bill? For the House, Speaker Cannon; for the Senate, Mr. Aldrich, chairman of the Senate Finance (Tariff) Committee, and Mr. Hale. Mr. Aldrich and Mr. Hale are the Senate, just as Mr. Cannon is assuredly the House. Also, every trust-owned man jack of them is an emphatic stand patter. Not one believes in distributing a schedule hair on the Dingley Bill's head. Take my word, when the tariff battle is over—and that will not be until next September, even if the end should come so soon—the most hawk eyed among us will not be able to discover a least sign of reduction. Not one top rail on any panel of the tariff fence will have been removed, and we will continue to be trust skinned in that same good old way with which we are so painfully familiar.

Surely there will be public clamor. Won't that frighten our stand-pat gentlemen? Mr. Cannon is seventy-three years old. Also he is rich. It is difficult to stampede a millionaire whose career is all behind him. He has no future to threaten. As for Senators Aldrich and Hale, they have been thirty years in the Senate. They feel as secure of their seats as any toad entombed in antediluvian rock. Moreover, they do not come from the people; they are chosen by legislatures which are first chosen by them.

Mr. Payne?

Mr. Payne is slow, thick, fat witted, not keen, and about as well upholstered for real leadership as a roll of cotton batting. His wisdom works as slowly as a cow in a swamp. His speeches are as dry as a covered bridge. Congress for a decade has been going mentally down hill. Just as a little tree shows tall on the flat, unwooded levels of the plains, so has Mr. Payne become important because of that desolate congressional barrenness wherewith he is surrounded. When it comes to Mr. Payne, the dove of popular hope, yearning and circling for tariff reductions, will find nowhere to rest the sole of her foot.

The same—in tariff, at least—is as true of Mr. Taft. He lost his chance when he let Mr. Cannon cajole him into a truce. Mr. Taft should have begun shooting at Mr. Cannon the moment he clapped eyes on him. After Mr. Cannon is chosen Speaker, he will be out of reach of any White House artillery, while the White House on its side will be in point-blank range of his own. In considering what your tariff is to be, think only on what Mr. Cannon, Mr. Aldrich and Mr. Hale would wish to have it.

Mr. Taft's veto?

That veto—since it would leave tariff matters as they are—would be water on the stand-pat wheel.



## The Soul of Honour

By Lady Troubridge

NOTE—See Synopsis of Preceding Chapters on Page 22.

### CHAPTER VIII.

"GARTLANDS!" shouted the guard, and Honour woke from a half-uneasy sleep and got out of the carriage, with an almost joyful feeling of expectancy.

It had come at last, this exciting moment to which she had been looking forward with an ardor greater than she knew herself, and which was almost amusing to her when the facts of the case were taken into consideration.

After all, she was only going to more work, more loneliness; perhaps even to some of those humiliations which the rich put upon those who eat their bread, and there was no valid reason for this almost childish joy, this sudden uplifting of the heart like a caught breath, a very gasp of wonderment. It was babyish of her, but she could not help it, and she collected her belongings with something of the exaltation of a child out for a day's jaunt.

Her own feelings engrossed her to such an extent that she gave a jump at being accosted by a chauffeur, who, in the regulation motor coat and peaked cap, stood at her side.

"Are you for Hurstleigh Castle?" he asked.

"Yes," answered Honour, timidly, wondering if this splendid personage was going to shoulder her shabby box. She need have had no such apprehension, for he instantly summoned a porter with a grand air, which impressed the girl against her will, and the thought grew in her mind that if the dependents were so magnificent, the master might be really uncomfortably awe-inspiring.

This feeling deepened when she left the station and saw the splendid motor waiting at a little distance from the other conveyances.

Honour knew nothing of motors, except to keep clear of them in the London streets, but she ventured to ask if her box was going with her.

The chauffeur seemed surprised at the question.

"That will be seen to, miss," he said, "but you can take your dressing bag with you." By which name he dignified the shabby gladstone which he placed in front of her, and then he eyed with some dubiousness the thin jacket and round hat she wore.

"Have you a motor coat, miss?"

"No, but it doesn't matter."

He turned and fumbled in the back of the car, reappearing with a splendid garment lined with sable.

"His lordship ordered this to be sent down," he said, briefly, holding it out to her.

Honour hesitated, and spoke unguardedly words which, in the light of after events, became memorable in the servants' hall at Hurstleigh, causing smothered laughter as often as they were repeated: "Oh, this is much too good for me," she said. Then, as the situation became slightly absurd, and the man still waited in silence for her to make up her mind, she inducted herself into it, realizing with amusement that it was a man's overcoat, for it fell round her slight figure in heavy cumbrous folds.

Thus weighted, she climbed into the car, and the delightful rushing journey began, Honour realizing more and more the uselessness of hat pins in a motor drive, and finally, in desperation pulling off her hat and letting the wind play with her hair, as she sat snug and warm in the great coat which had been sent. Surely a considerate employer this one who overlooked no trifle. How wise she had been to come!

The thought was still with her as they entered the park, and she feasted her eyes with the stately beauty of her surroundings. It seemed to her that this park must stretch for miles, broken by noble trees and distant woods; and it was, in truth, quite a while before they passed through another gate and entered the grounds.

To the right she saw an immense lake; to the left a vista of velvet lawns, but she had no time to take in the details, for the car was rushing up a sudden hill, scattering the pebbles, and then veering suddenly to the left, the whole quadrangle of the house faced her.

It was an immense pile, built in a rather florid style, but extremely imposing; in fact, it almost seemed to the inexperienced eyes of the newcomer, that it was no house at all, but a town at which she was arriving, for she caught sight of the gilded dome of what looked



"She turned away at last and threw herself into a chair; but the dreaming fit was still on her, and now she thought no more of her outward appearance, but looked deep, deep into the recesses of her own heart and mind"

to her like a church at the back, and where the rays of the June sunshine seemed to cluster in what appeared to her a ball of fire.

Later on she knew that this was the private chapel, which was incorporated with the building, but at the time she only realized that except for Windsor Castle, she had never seen anything quite so imposing in her life.

She slipped out of the heavy coat as soon as she reached the ground, and replaced her hat, and then she walked up the stairs leading to the entrance door, hoping for some friendly greeting, some one to tell her what to do.

She was greeted certainly, but not as she expected, for she saw no one but servants, who seemed to start up on all sides like the spirits of an enchanted castle.

Honour stood still abashed, as a pompous-looking butler approached her.

"Miss Read, I think," he said.

"Yes."

"His lordship desired me to say that he hopes you will ask for everything you want. Tea will be served at once in the red drawing room, and his lordship thought you would prefer dinner in your sitting room."

She assented, and found herself led through a long hall, flanked on either side with statues, toward folding doors at the further end, and through them to a small library, where tea was ready.

The moment she entered the room, the door was closed behind her, and she was left to her own meditations and refreshments.

"Exactly like Beauty and the Beast," thought the girl, paying herself an unconscious compliment, as she drank her tea in lonely dignity, wondering how she was ever to reach her own rooms, and how long she would be left stranded in this way; wondering also a little uneasily where the chaperone was, of whom Taunton had spoken so glibly, for so far there had been no sign of either maiden sister or elderly aunt.

Fully half an hour elapsed before the door was again opened, to admit a person whom Honour at once correctly decided to be the housekeeper, and who came up to her respectfully.

"His lordship says," she began—and Honour nearly burst out laughing at the invariable formula with which every sentence in this house seemed to begin—"that he thought I had better come and explain a little, as you might be feeling a trifle strange, miss. His lordship's sister, Lady Cicely, was expected to-day to make a long visit here during your stay, but she has unexpectedly been detained, and cannot come for a week."

"I see," said Honour, beginning to feel very grateful to that unseen tact and thoughtfulness which was so evidently watching over her.

"Yes, miss; you see, being a young lady, his lordship thought you might feel awkward if you didn't quite understand, but her ladyship will come, and then you will not be at all lonely."

Voice, air, manner, message, all were perfect. The old woman had evidently received instructions to convey to the

secretary that she would be treated as one of the family. Honour responded at once; her stiffness vanished and she smiled graciously.

"I have come to work," she said, "and so I'm quite prepared to be without company; but it is very kind of Lord Vannister to explain. Perhaps you can tell me a little what will be required of me, and whether I am to work with him or by myself."

"I could not take upon myself to say, miss," was the answer, given with a little increase of formality. "We only know just what we are told, but I should think, miss, that you will work alone."

She hesitated and looked at the girl somewhat strangely. "His lordship is a great invalid," she said, "and he keeps entirely to his own rooms. Sometimes no one sees him for weeks or months together but his own servant."

"What is the matter with him?" asked Honour, suddenly, for she had never been trained in the punctilio of this kind of house. She saw her mistake instantly, for the housekeeper froze at once.

"That I couldn't say, miss," she said. "Will you please to come upstairs?"

### CHAPTER IX.

THE girl followed her conductress upstairs with slightly dragging feet, and a loss of that first eager curiosity which had bubbled up within her when she came to this great beautiful house. After all, to what had she come? To more work, more loneliness, to follow on a dull gray road which, alternated by patches of vivid agonizing sorrow, had seemed to be her life hitherto.

The woman was respectful enough, even deferential with the smooth, well-trained manner of her class, but in the few words which she had spoken she had already placed Honour, as it were, outside the sacred circle of her employers and their home life.

"I think you will work alone, miss." These words echoed with a dull sound in Honour's ears, for they seemed to presage her whole future.

When the woman had gone she threw off her hat, and advanced to the splendid looking glass, which stood on an immense Empire table in the embrasure of the window. There she stood for some time, watching the reflection of her face in the glass, and trying to understand some of the strange thwarted feelings which ran through her.

Leaning forward so that she almost touched her own pictured face, she examined herself with a greater care than she had ever given before to any such personal matter, for young girls at work in a London office have little time for dwelling on either their mental or their physical attractions; and it is well, perhaps, that this should be so. The life is so hard, the wear and tear of the brain so incessant, the demands on every physical resource so cruel, so unremitting, that it becomes at last sufficient to get through the day's work no matter how; and until Marcus Quinten had first told her that she was beautiful, she had looked upon herself with the unconsciousness of a very young child.

Now there was a pause in the great rushing machinery of life; the wheels no longer revolved at such a maddening rate. Like the ceaseless throbbing of an engine the days and the weeks had whirled past, and now she was conscious of an utter stillness—a strange, paralyzing pause, in which she drew breath and considered herself as an outsider might have done.

The mirror reflected back to her a strange beauty of which she could not but be sensible, although its unlikeness to the fairness of some other women she knew startled and annoyed her, and she longed, as she had often done before, to be the possessor of golden hair, blue eyes, and soft indefinite coloring. There was nothing indefinite here; heavy, waving masses of black hair, framed a face white with the intense whiteness of a magnolia bloom; the only touch of color lay in the small curving mouth, and in the red lips which closed so firmly over the small even rows of white teeth. But it was her own eyes which faintly interested her as she gazed into them, and noticed, for the first time, that chameleon like, they seemed to change with each of her passing thoughts. She had always liked to call them gray, but in moods of truthfulness Sarah Gibson had assured her that they were green, and now it seemed to her that this was true, for they looked back at her with almost an emerald light in their depths; and although she was not vain, the knowledge came to her that there was something strange and magnetic in their peculiar color, something evasive and illusive as the deep reserved heart whose emotions they mirrored.

She turned away at last and threw herself into a chair; but the dreaming fit was still on her, and now she thought no more of her outward appearance, but looked deep, deep into the recesses of her own heart and mind. And first she found in herself a strange hardness, an iron resolution to have utterly done with the past, so that not even a vestige of lingering regret came to her as she thought of the man who had surely treated her more cruelly, more heartlessly, than any man had treated woman before. It would have been only natural that she, being what she was, tender, good and high principled, should have thought of this traitor for years with infinite regret, forgiving him indeed, but never forgetting, as is the way with faithful womankind. Faithful indeed she could be; she knew herself too well to doubt that, but she was made of sterner stuff than to give up her whole life to a mistake, a disaster. Irrecoverable, thank heaven, it had not been; and, as she sat there, she resolved to end this thing in her thoughts as though it had never been. Not only would she never think of him again, but she would banish every faintest memory of the months in which he had played his ignoble part, and if she forgot, even as he had already forgotten, the past, which lives only in people's memory, must surely cease to have any existence whatever. She would engross herself in this loveless present, and wrest from Fate some portion of the honor and independence which is never refused to deep and concentrated effort, as hers should be.

The only thing which puzzled and irritated her in this new post of hers was the indefiniteness of her duties, and of her position—a kind of mystery which hung over this exquisite, enchanted spot, its master, and all the details of her life there. Feeling that time alone would solve the problem, she passed the evening in trying to fortify herself for whatever might come, and waited with a growing impatience for eleven o'clock on the following day, which was the hour that she had vowed to herself to come to some understanding as to her work.

She had not so long to wait, for at half-past ten a light knock sounded on her sitting-room door, and a man servant entered, whom at the first glance she judged to be Lord Vannister's own personal servant; and in her proud heart a quick feeling of resentment instantly flamed up. He had signified that she was to be treated not only as a lady, but as one of the family; and yet apparently he thought fit to send her instructions by this valet. She suffered none of these thoughts to appear in her manner, which was gracious and dignified, for the servant seemed embarrassed, as he laid a mass of correspondence in front of her.

"The notes as to the replies, miss, are with the letters," he said.

[CONTINUED ON PAGE 22]



## Lincoln Anecdotes

IT WAS characteristic of Lincoln to answer an argument by telling a story. And the story was generally so aptly applied and to the point that it was more conclusive than would have been tomes of logic delivered in yard-long sentences rounded by rhetoric and emphasized by oratorical effect.

It would take a good many acres of timber to furnish the wood pulp to make the paper on which to print all the "Lincoln Stories" that were ever told, the greater part of which have been, and still are, the product of imaginative writers and professional "jokesmiths." Mr. Lincoln himself deplored many of these stories that gained currency during his lifetime, even the better and cleaner ones, for there were many that were suggestive and coarse, and even worse—stories that no right-minded, intelligent man would ever allow himself to think had been repeated by such a clean-minded man as President Lincoln is known to have been.

Story telling with Mr. Lincoln was incidental, elicited by the incidents in his daily private and public life; and many incidents have been given greater historic value because of the story he infused into them.

Ask the representative Southerner whom he considers the best friend the South ever had. There is no hesitation in his answer, "Abraham Lincoln!"

While visiting the hospital camp at Washington during the height of the campaign he noticed that his escort had passed some of the wards. "Let us go in there next," said the President.

"Oh, you won't care to go in there," replied the escort. "Those wards are filled up with nothing but rebel prisoners."

The sad face of the commander-in-chief showed his rebuke as he replied, "Confederate gentlemen, you mean; unfortunate in the game of war, yet wards of this nation." And he visited the "rebel" wards, giving his hand or a kindly word to each man.

Mr. Lincoln was going over the battle field of Gettysburg shortly after that memorable battle. Reaching the brow of a hill, the general escorting him said, "Here on the brow of this hill stood our brave men, who three different times repelled the assaults of the rebels. I shall always be proud, Mr. President, very proud indeed to know that the men who held these heights were American citizens."

Quick as thought the broad-minded "rail splitter" replied, "And I shall always be proud to know that the brave men who charged up these heights, though repulsed three times, charged again and again, were likewise American citizens!"

If ever a President of these United States was bothered and pestered with advice as to how to run the administration, it was Lincoln. Committees and delegations were almost daily visitors, and sometimes they were nothing short of a nuisance, but Lincoln usually handled them in such a manner that they went away feeling that they had been playing with fire, and that if they had their fingers scorched it was the result of their own indiscretion. He often answered their arguments for changes and reforms with a story, and the point was so sharp that no other answer was needed, and the futility of further persuasion was so evident that none was offered.

A delegation waited on the President to ask him to remove Secretary of the Treasury Chase, claiming that he hampered the administration and was in the way of the President. After they had finished their arguments he smiled good naturedly, and said:

"That reminds me of a farmer out West. He was plowing with his old mare Nance one hot summer day, and his son was following another plow in an adjoining furrow. A horse fly got on Nance's nose, and the son kept yelling to his father to stop and get the fly off the mare's nose. The father paid no attention to his son for a long time. But the son kept yelling about the fly on Nance's nose until the old man answered, 'Now, look-a-here, son, just keep quiet; that ere fly on Nance's nose makes her go faster.' There was no explanation needed to such a point as that, no further reply to their importunities.

Some gentlemen had come from the West and were at the White House, much troubled and excited about the omissions and commissions of the administration. Lincoln sat serenely, and heard them patiently until the end, and then he said:

"Gentlemen, suppose that all the property you owned was converted into its

value in gold, and you had put it in the hands of Blondin to carry across the Niagara River on a tight rope; would you shake the cable, or keep shouting out to him, 'Blondin, stand up a little straighter! Blondin, stoop a little more—go a little faster—lean a little more to the north—lean a little more to the south.' No; you would hold your breath as well as your tongue, and keep your hands off until he was safe over. The administration is carrying an immense weight. Untold treasures are in their hands. They are doing the best they can. Don't badger them. Keep silence and we'll get you safe across."

Those most intimately acquainted with the attitude of Lincoln toward the defeated at the end of the war believe that if Lincoln had lived Jefferson Davis would not have been imprisoned. A party of gentlemen at the White House were discussing policies to be pursued after the surrender of the then crumbling Confederacy, and one of them asked, "What will you do with Jeff Davis?"

"There was a boy in Springfield," replied Mr. Lincoln, "who saved up his money and bought a 'coon,' which, after the novelty wore off, became a great nuisance. He was one day leading him through the streets, and had his hands full to keep clear of the little vixen, who had torn his clothes half off of him. At length he sat down on the curbstone, completely fagged out. A man passing was stopped by the lad's disconsolate appearance, and asked the cause.

"Oh," he replied, 'this coon is such a trouble to me!'

"Why don't you get rid of him, then?" said the man.

"Hush!" said the boy. 'Don't you see he is gnawing his rope off? I'm going to let him do it, and then I will go home and tell the folks that he got away from me!'

That indicated about what Lincoln intended to do with Davis.

Some of the visitors who went to see Lincoln about matters of business important only to themselves sometimes came away to say that they thought that Lincoln was a buffoon. It was easy to learn who had had the best of the argument. Sometimes, when the subject required rough handling, he handled it roughly. But he was a diplomat with men, also, a Chesterfieldian cavalier with women, as witness the following incident:

At a Saturday-afternoon concert given by the Marine Band a lady from New York approached the President with a magnificent bouquet of choice flowers, and said, "Allow me, Your Excellency, to present you with these flowers!" Here was a situation at once delicate and embarrassing.

An eye witness in relating the incident says: "I was puzzled to know how 'His Excellency' would get out of it. With no appearance of discomposure, he stooped down, took the flowers, and looking from them into the sparkling eyes and radiant face of the lady, said with a gallantry I was unprepared for, 'Really, madam, if you give them to me, and they are mine, I think that I cannot possibly make so good a use of them as to present them to you, in return!' Chesterfield could not have extricated himself from the dilemma with more tact and address; and the incident, trifling in itself, serves to illustrate that there existed in the 'rail splitter' and 'flat-boatman'—uncouth as some unjustly supposed him—the essential elements of the true gentleman."

A widow interceded with Lincoln to save her boy who was sentenced to be shot as a deserter. As in hundreds of other instances, he was touched by her plea, and granted her request, sending upon the moment a characteristic telegram to the front. It read: "Suspend execution of ——— until further orders."

"Oh, but, Mr. President," cried the old mother, "that does not pardon my boy! That does not save him, after all!"

Stepping close to her, he laid his great, gentle hand on her trembling shoulder, and with that look of infinite tenderness and compassion, so well known to those who were near him during those trying days, he stooped his face close to her tear-reddened cheeks, and said, "You dear old mother, do you suppose that I will ever give orders for your boy's execution?" And a great light dawned for her, and her face was made radiant with the happiness that came with the relief of the burden from her heart. She said afterward, "Some folks say that Mr. Lincoln is not good looking. Why, I think he had the handsomest face of any man I ever knew; it was beautiful and sweet as a child's."



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Farm and Fireside, Springfield, Ohio

## Miss Gould's Dressmaking Lesson

These Two Wrappers Can Be Made From One Ten-Cent Pattern

THE busy housewife is always on the lookout for an attractive wrapper design. The two wrappers illustrated on this page, both of which can be made from the one pattern, have many good features. First of all, they are particularly trim looking, having almost the effect of a shirt-waist suit, and then they are especially easy to make. The semi-fitted back of this wrapper makes it much easier to make than if it were a tightly fitted princess. It must be remembered that the seams in a wrapper are very long and it takes some time to baste and stitch them. Consequently, a wrapper that is made with just two backs and two fronts and has no under-arm and side gores is much more simple to make and much easier to fit than a tight-fitting princess.

The pattern envelope contains six pieces. The front is lettered V, the back T, the turn-down collar L, the sailor collar Y, the upper sleeve K and the under sleeve F. The letters are perforated through the pattern pieces, in order that they may be easily identified.

In using the pattern, smooth the pieces out carefully before placing them on the material. Lay the turn-down collar and the sailor collar with the edges marked by triple crosses (X X X) on a lengthwise fold of the material. Place the fronts, backs and sleeve portions with the line of large round perforations in each lengthwise of the goods.

It requires ten and one half yards of twenty-seven-inch material for this wrapper, or seven and one half yards of thirty-six-inch material. When the flounce is used, one and one half additional yards of material will be needed. These quantities are estimated for material that has an "up and down" or a nap. If wash fabrics are used, and there is no figure to be considered, the different pieces may be reversed and fitted into each other, thereby saving quite a little material. Be sure that there is no "up and down" to the fabric, however, before attempting to reverse the pieces.

Cut out all the notches, and be careful to see that all the perforations are marked before removing the pattern pieces from the material.

### To Make the Plain Wrapper

Form the tucks in the fronts by bringing the corresponding lines of triangle perforations together. Stitch on these lines and press the tucks flat.

Join the backs and fronts by corresponding notches. Turn the hems on the fronts by notches and stitch in three fourths of an inch from the edge of each hem. Lap the fronts, matching center lines of large round perforations. Stitch them firmly, from the bottom up to the cluster of small round perforations. Above this cluster of perforations the wrapper should be fastened with buttons and buttonholes. Join the turn-down collar to the neck as notched. Roll over the collar on line of small round perforations. Turn a three-inch hem at the lower edge of wrapper by lines of large round perforations.

Join the upper and under sleeves by notches. Ease the upper sleeve at the elbow between notches. Gather the sleeve at upper edge between double crosses.

Pin the sleeve in the arms-eye, placing the front seam at the notch in the front of the wrapper, and bring the top notch in the sleeve to the shoulder seam. After these two points have been secured, pin the plain part of the sleeve smoothly into the armhole. Always hold the sleeve toward you when arranging it in the arms-eye. Draw the gathers up closely to fit the remaining space, distribute them evenly, and pin carefully before basting the sleeve in the arms-eye. It is better to use a few additional pins in doing the preliminary part of the work than to be careless at this point and have to readjust the sleeve after it has been sewed to position.

In making a plain wrapper of this description it is an excellent plan to button it all the way down the front instead of stitching the fronts together below the opening. Any one who has tried to iron a large garment of this kind knows how much easier it is to handle one that opens out flat and may be ironed in this way.



Back View of Pattern No. 1249

### To Make the Wrapper With Sailor Collar and Flounce

The body portion is made and joined in the same manner as directed for the plain wrapper. The turn-down collar is, however, omitted and the sailor collar is used in its place. Join the sailor collar to the neck of wrapper as notched.

To make the flounce, cut a strip of material four and one half yards long and nine and three fourths inches wide. Turn

a two-inch hem at the lower edge of the flounce. Turn an inch-wide heading at the upper edge. Three eighths of an inch is allowed on each edge in addition to the hem and heading. The flounce when finished should be seven inches wide.

Gather the flounce one inch down from the top of the heading. It is a good idea to divide the flounce into four equal parts (each one and one eighth yards long) and gather each part separately. This will help when you start to join the flounce to the wrapper.

Divide the lower edge of the wrapper into four parts, and arrange each quarter of the flounce on the quarter of the wrapper. As you have gathered them with different threads it is possible to adjust each quarter separately, and that is much easier than trying to handle the whole flounce at once. In arranging the flounce on the wrapper, match the lower edges and bring the line of gathers in the flounce to the line of small round perforations on the wrapper.

The wrapper may be drawn in closely at the waist with a ribbon, as shown in the illustration, or it can hang loosely.

Some women prefer wrappers that are tight fitting or shape in at the back, showing the outline of the figure, and hang loose in front. This wrapper is an excellent model for a garment to be worn in that way. A narrow belt or ribbon may be passed around the waistline at the back, slipped through openings made in the under-arm seams, and fasten in front at the inside.

Three-eighths-of-an-inch seam is allowed on all edges of this pattern, except at the shoulder and under arm, where a one-inch seam is allowed, designated by lines of small round perforations.

It is at the shoulder and under-arm seams that most of the fitting is done in a garment, and this additional inch is allowed as a safety outlet.

When the wrapper is made of heavy materials the flounce adds considerable weight, and it is an excellent plan to cut away the lower part of the wrapper beneath the flounce. This does away with the extra goods and the deep hem.

In planning to make the wrapper, following this idea, cut it off one half inch below the line of small round perforations. Then join the flounce to the wrapper, bringing the line of gathers in the flounce to the line of small round perforations near the edge of the wrapper. The flounce forms the lower part of the wrapper and there is no foundation beneath it.

The wrapper may be most economically cut from thirty-six-inch material. When this width is used there is very little

piecing to be done, and the different parts of the pattern may be arranged so there is no waste of material.

### New Neckwear

NECKWEAR just now exceeds in beauty and quantity anything in its line ever before offered. Its elaboration has led to the decadence of the fussy waist, for even the plainest blouse becomes a dressy garment when worn with a new-style neckwear novelty. Not alone for the house, but for the street wear are these novelties shown, and the woman who does not wish to wear an orthodox neck piece of fur selects a chie throatlet of ruching intermingled with fur or ostrich plumage, and goes on her way happy in the consciousness that she is looking her best.

Coq and marabout boas, the latter with muff, and possibly hat, to match, are among the fetching fashions, and rival furs in popularity.

Many of the new stocks of very thin satin which tie in a bow in front with long ends have these ends edged with little fur tails. A cerise satin stock finished with mink tails is especially good form with a dark tailored suit.

The woman who is clever enough with her needle to make separate designs in crochet work can use these designs to good advantage in decorating the ends of a linen jabot. Some of the smartest neckwear novelties of the season are the fine linen jabots trimmed with an inset of Irish crochet and worn with a turnover embroidered linen collar.

The narrow Directoire ties keep right on being the height of fashion. Very novel ones are of black satin with the center a band of striped silk. That is, a blue-and-white-striped silk bordered with black satin, or pink and white, or green and white. The ends are finished with silk balls in black.

Stocks of net over a silk foundation and cleverly boned so that they stand up as they should are now trimmed with a design of silk soutache braid, and very effective indeed are they.

Miss Gould will be glad to answer any questions pertaining to home dressmaking which may perplex the readers of Farm and Fireside. She will send by return mail a personal letter to the writer if a stamped and self-addressed envelope is enclosed. Direct all letters to Miss Gould's Dressmaking Department, care of Farm and Fireside, 11 East 24th Street, New York City.



# Madison Square Patterns



No. 1267

**No. 1267—Double-Breasted Plaited Shirt Waist**

Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four yards of twenty-seven-inch material, or two and one half yards of thirty-six-inch material.



**No. 1086—Plain Housework Dress**

Sizes 32, 34, 36, 38 and 40 inch bust measures.



**No. 749—Princess Petticoat**

Sizes 36, 38, 40 and 42 inch bust measures.



No. 1268

**No. 1268—Plaited Dressing Sacque With Stole Collar**

Pattern cut for 32, 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four and one half yards of twenty-seven-inch material, or three and one half yards of thirty-six-inch material.



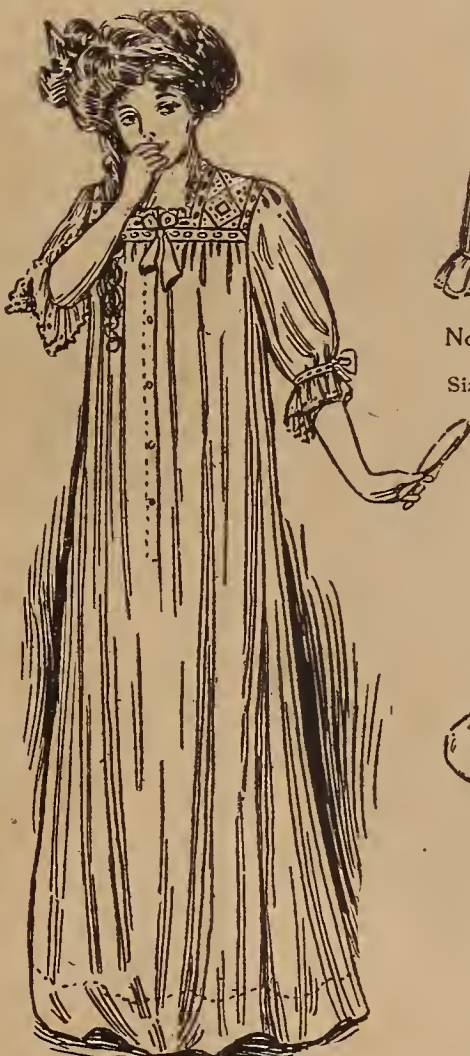
**No. 886—Tucked Tailored Shirt Waist**

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four yards of twenty-two-inch material, or three yards of thirty-six-inch material.



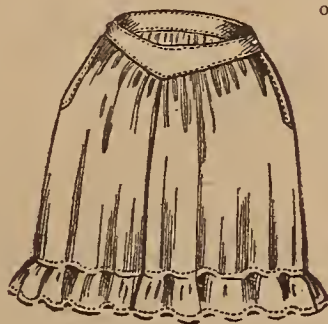
**No. 927—Tucked Housework Dress**

Pattern cut for 34, 36, 38 and 40 inch bust measures. Length of skirt, 40 inches. Quantity of material required for medium size, or 36 inch bust, twelve yards of twenty-seven-inch material, or nine and one half yards of thirty-six-inch material.



**No. 1255—Nightgown With Square Neck**

Sizes 32, 36 and 40 inch bust measures.



**No. 700—Closed Drawers With Yoke**

Sizes 22, 24 and 26 inch waist measures.



**No. 1256—Box-Plaited Waist With Long Sleeves**

Sizes 34, 36, 38 and 40 inch bust measures.

**No. 1257—Circular Skirt With Plaited Panel Front**

Sizes 24, 26, 28 and 30 inch waist measures.



**No. 1173—Morning Dress**

Sizes 32, 34, 36, 38 and 40 inch bust measures.



**No. 706—Corset Cover With or Without Fitted Skirt Portion**



**No. 1196—Reefer With Shawl Collar**

Sizes 6, 8, 10 and 12 years.

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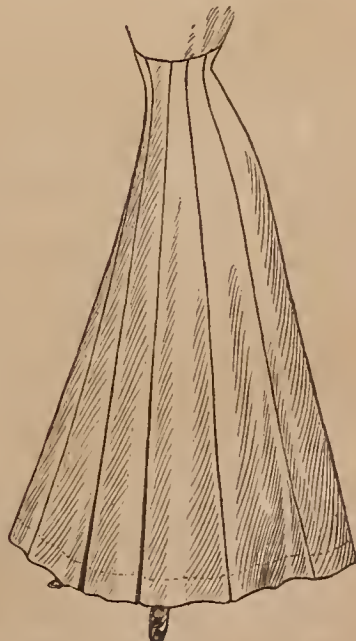
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**No. 852—Seven-Gored Skirt**

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**No. 1207—Thirteen-Gored Corselet Skirt**

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3. Send us 40 cents for your own subscription one year and any one collection of flowers.

### For Obtaining Other Subscriptions

4. Any one collection of flowers will be given for only two subscriptions to Farm and Fireside at 25 cents each. One of these may be your own subscription.
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## The Soul of Honour

(CONTINUED FROM PAGE 18)

### Synopsis of Previous Chapters

Chapters I. and II.—The story opens on Cup Day at Ascot. Among the fashionable throng are Lady Windermere and her daughter Hyacinth. The younger woman is advised by her mother to accept Marcus Quinten, who, on the death of his cousin, Lord Vannister, will be a rich man. Lady Windermere speaks disparagingly of Jack Taunton, Quinten's Australian friend, and Hyacinth demurs. Quinten asks Jack for a loan, telling him that he means to propose to Hyacinth that day. Taunton reproaches Quinten for posing as a wealthy man and representing him (Jack) as being poor. Taunton asks Hyacinth if she could care for him, but she tells him her parents wish her to marry Quinten. A woman at the gate of the paddock recognizes Quinten, and greeting him as her husband, upbraids him with attempting to desert her. He coolly tells her that their supposed marriage was a mockery, and leaves her, fainting. Taunton comes to her assistance, and her friend, Sarah Gibson, tells him the story of Honour Read and her marriage to Marcus Quinten. Returning to the Windermeres, he is informed of Hyacinth's engagement to Quinten.

Chapters III. and IV.—Taunton is shocked to hear of Lady Hyacinth's engagement to this man, Quinten. They arrange to meet once more for a last talk. Then Taunton seeks out Marcus Quinten, and tells him that he knows Honour Read and her sad story. He demands that Quinten should break off his engagement to Hyacinth. Quinten refuses point blank, and Taunton threatens to tell Hyacinth everything and to help Honour Read to assert her rights. Quinten is still defiant. On returning to London, Jack calls at the Windermeres, but is informed that my lady is not at home. He has, however, been invited to lunch by Marcia Kenyon, a mutual friend, where he hopes to meet Hyacinth.

Chapter V.—Honour Read tells her friend, Sarah Gibson, that she will have nothing more to do with Quinten, and expresses her regret that she cannot find employment. Jack Taunton calls at their rooms. He suggests, partly in consideration of his own interests, that he should induce or compel Quinten to break off his engagement to Lady Hyacinth Windermere, and really marry her (Honour Read). She points out that the man she once loved, hates her now, and has made it possible for her to pass out of his life. Then Taunton tells Honour that he thinks he can secure a position for her, and proceeds to detail the peculiar requirements of Lord Vannister. He is a misogynist, and requires a secretary, who will not trouble him personally. She gratefully accepts his good offices in securing the position, and receives by wire, in a few hours, a favorable reply to her application. Honour begs Taunton to prevent Quinten's marriage with Hyacinth, but he points out that he cannot do so, as she (Honour) will not allow him to tell them the truth about Quinten's character.

Chapter VI. and VII.—Jack Taunton meets Lady Hyacinth at the house of Mrs. Marcia Kenyon, who warns them that she cannot leave them long together. Jack asks Hyacinth if she still cares for him, and she is on the point of assenting when Mrs. Kenyon enters and draws Hyacinth away. She tells Taunton that in society, young girls cannot always follow the impulses of their own hearts. She speaks of Quinten, and Taunton tells her that he is penniless and a blackguard. Hyacinth, indignant, demands proof or a withdrawal. Taunton can do neither, and Hyacinth leaves him. Honour Read, on her way to take up her new situation as secretary to Lord Vannister, recalls her first meeting with Marcus Quinten.

Honour picked them up, and glanced at them for an instant, then arrested the man as he was leaving by a movement of her hand.

"These letters are very personal," she said; "and the notes are not in the least comprehensive. I hardly know how to deal with them."

An awkward pause succeeded; the servant had no ideas to offer on the subject. He stood all attention, while Honour, the puzzled line deepening on her brow, examined the first letter, which apparently was from a relative, asking for the loan of his London house for a charity.

Glancing at the note as to the reply, she saw only three words, scrawled in a somewhat large and irregular hand: "Refuse and snub." A faint smile curved her lips.

"But this is quite absurd," she said. "It seems to be from some personal friend or relation whose name I hardly know. I think, if you please, you must take these back to Lord Vannister, and request him to give me a short personal interview, or fuller instructions."

A shade fell over the man's face. He looked what she mentally called to herself, agitated.

Gathering up the papers, she put them again into his hand. "Please take them at once," she said, "as I am anxious to get on."

The valet placed them on the table once more, and the hunted look on his face deepened.

"If you please, miss," he said, "I couldn't undertake to do that. It would be as much as my place was worth. Lord Vannister is a very good master to us, and he makes it worth our while to obey him, but he will not be thwarted; in fact, he's not the kind of gentleman to be advised on any point, miss."

"How very extraordinary!" exclaimed Honour. "Of course, I don't wish to get you into trouble," she added, with a little bend of her quivering head.

"Thank you, miss," he said, intensely relieved.

Again she picked up the obnoxious note and studied it. It seemed absurd to turn for counsel to a servant, but in desperation she spoke to the man again:

"This letter is signed 'Mary Coddington,'" she said; "but I have an idea of the correct way of addressing this lady."

"I can get you a directory, miss, and you can look up the addresses and find the names."

Indeed it seemed the only solution. As Sarah had foreseen, her employer must be an eccentric.

On looking up the address of the first letter she discovered that the lady who was to be refused and snubbed was the Marchioness of Coddington, and she wrote a polite note expressing Lord Vannister's regret that the house in question was unavailable at the time.

Most of the other letters were as strange and perplexing, and with the social ones he dealt as summarily and curtly as with the first. Every invitation carried with it an instruction to refuse, and the notes were no fuller than the first. Only on one or two begging letters had he scrawled words which were more explicit. "Ask for details" was written across one, which to Honour's hard young common-sense view, carried with it the impress of mendacity in every word. But it was written in a kindly way, and she liked him better for the overgenerosity of his orders.

Finally she picked up the last letter, and looking up she saw that the servant had reentered the room.

"If you please, miss," he said, "there is one letter there his lordship does not wish read. It is marked 'No. 8.'"

"This must be it," said Honour, taking it in her hand, and angrily conscious that she was whitening visibly, and that the hand which held the letter was trembling, for she had recognized the bold free handwriting of the superscription on the envelope; recognized it with a throb of anguish which showed her that though the past was dead indeed, the cruel wound it had left was not yet healed.

"If you have come for these letters," she said, "wait a moment. I have a note to write to Lord Vannister."

The man waited in silence, but the same look of fear and perplexity which each mention of this strange master seemed to bring dawned in his eyes again.

Well, let them be as servile as they would, she told herself she was not built that way, and seizing a sheet of paper she wrote the following:

DEAR LORD VANNISTER:—

I have done my best to reply to these letters in a suitable manner, but I fear I cannot undertake the work of so delicate and personal a character without more definite instructions. If it is impossible for you to receive me for a few moments, I will, of course, do my best, but I must disclaim all responsibility for any errors which I may commit in ignorance of the persons to whom I am writing; and permit me to add that it is slightly unusual for me to receive my instructions through your servant, although I am quite sure that it is no doubt a question only of ill health which prevents my seeing you.

She signed her name in full, and despatched the note; then sat trembling at her own temerity, and wishing she had waited for the arrival of his sister, who would have undertaken such details.

[TO BE CONTINUED]

### In the Back Office

WE WERE talking about advertising in our last issue, and the value to you of FARM AND FIRESIDE'S guarantee on every advertisement that we print. We also showed you how you can banish the questionable advertisement from the columns of every periodical with which you come in contact, by insisting and re-insisting upon the guarantee of the publisher in each case.

Suppose, now, we give some consideration to the reading columns. Here, too, vigilance and high mindedness on the part of the publisher is necessary and should be demanded. No business institution, no advertiser, no private interest of any kind can influence the reading matter that goes into FARM AND FIRESIDE.

Many a contributor may say (if he says honestly) things which we don't agree with, things which we in our editorial columns frankly criticize, but no man living can serve any private end, financial, political or otherwise, in the reading columns of FARM AND FIRESIDE. No advertiser disguised in the cloak of an editor or contributor can talk his wares. No promoter from the vantage ground of "pure reading matter" can seek converts from the FARM AND FIRESIDE family. Every advertisement, backed only by our guarantee of reliability, stands on its merit—stands in the open as a frank, manly solicitation of your patronage.

Don't you feel safer in such company?





# The Household



## How to Make Pastry

**T**HE chief things to observe in producing good pastry are that all the utensils should be clean and free from dust, that the flour should be perfectly dry and the butter, lard or dripping perfectly fresh.

Finely chopped suet is a very economical substitute for butter, but this kind of pastry should always be served hot.

When mixing the paste, add the water gradually, working it together with a wooden spoon, and kneading until quite smooth. A cool hand and a light touch are very essential to insure good pastry, while if possible a marble slab is preferred to a board for rolling out the paste.

Rich, light pastry must be quickly made and quickly baked; if allowed to stand too long before putting in the oven it becomes heavy.

To make puff paste, take one half pound of butter and one half pound of flour, and work the flour into a smooth paste with one fourth of a pint of water, mixing with a knife. Roll out to an inch thickness; break two ounces of butter into small pieces, lay on the paste, sifting some flour over; fold the paste, roll out again, using another two ounces of butter with flour as before, repeating twice more until the butter is all used.

Flour both rolling pin and board, to prevent sticking, and be sure the oven is quite hot before putting the pastry in. The oven should be very hot. It is wise to put in a small piece of paste to test the heat. About twenty or thirty minutes is the average time, according to the thickness of the paste.

An economical pastry is made by rubbing one half pound of butter lightly into one and one fourth pounds of flour. Mix smooth with water, and roll two or three times. If used for fruit tarts, mix in two tablespoonfuls of finely sifted sugar before adding the water.

Or allow six ounces of clarified dripping to one pound of flour, and mix with one half pint of water, treating as above.

## Lemon Filling

**B**EAT three eggs slightly, add two thirds of a cupful of sugar, one fourth of a cupful of lemon juice, the grated rind of half a lemon and two tablespoonfuls of water.

## Meringue

Beat the whites of three eggs until stiff, and add gradually, while beating constantly, four tablespoonfuls of powdered sugar, using an egg beater; then fold in three and one half tablespoonfuls of powdered sugar and add one half teaspoonful of lemon extract.

This filling and meringue may be used for lemon pie.

## How to Make the Quilt Blocks

**S**OME women who are inclined to be particular in their choice of quilt-block designs will surely find something artistic and pleasing in the group illustrated on this page.

Each design in this group, shown in three colors, is somewhat complex. However, when pieced together in a quilt they will be very attractive, because the design spreads all over the quilt and forms a single pattern. The most particular thing is the selection of the colors. Make the foundation of a light color, the design dark, and fill in with almost anything.

The proper way to get the pattern from the blocks in this group is to draw off the design on a piece of thick paper or Bristol board the full size of the block (from ten to eighteen inches). Then cut the pattern for each different piece from your drawing. If you cut the model design from very stout paper and use them very carefully, one pattern of each block should be sufficient for the entire quilt.

## Good to Remember

**B**OILING water poured over lemons that have become hard from standing will render them usable.

**I**F A cracked egg is wrapped in oiled paper before it is put in water, the contents will not ooze.

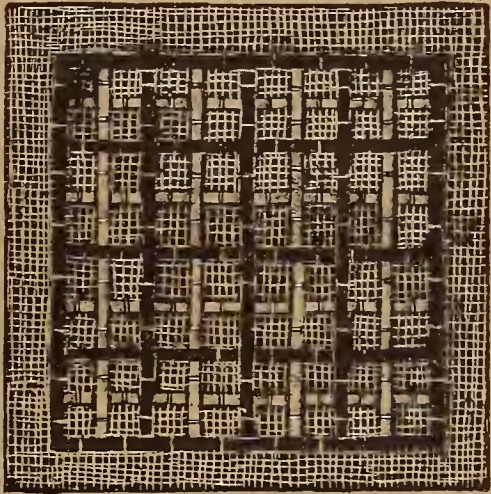
**W**HEN the chopping bowl is not in use, turn it upside down, and there will be no danger of its splitting.

**I**F THE sink gets greasy, a little paraffin well rubbed in will make it beautifully clean. Zinc pails if cleaned with paraffin will look as good as new.

**T**O TAKE out varnish spots from cloth, use chloroform or benzine, and as a last resource, spirits of turpentine, followed with a drying of benzine.

**T**O GIVE linen a good gloss, use hot starch to which add a tablespoonful of sugar. This also causes the linen to retain its stiffness longer than is usual.

**T**O TAKE spots of paint off wood, rub over it a thick coating of lime and soda mixed together, letting it stay on twenty-four hours. Wash off with warm water, and the spot will have disappeared.



Sofa-Pillow Top Made of Scrim, Threaded With Narrow Baby Ribbon

## Sofa-Pillow Top

**I**F YOU are wondering how you can give a new touch to an old sofa pillow which is the worse for wear, here is a suggestion which is sure to prove invaluable.

Make a new top for the cushion, similar in design to the above illustration. It can be made of canvas or scrim in any color desired, and the ribbon combinations may be made to correspond with the coloring of the room in which the pillow is to be used.

The top illustrated was made of cream-colored scrim and was threaded with red and yellow baby ribbon.

First cut your scrim or canvas the size desired, being careful to cut it perfectly square. Then at intervals of about half an inch draw a sufficient number of threads to make the space just wide enough for the baby ribbon to pass through (have the space one fourth of an inch wide if you use baby ribbon). Draw the threads vertically and horizontally. Of course, the number of threads drawn depends upon the width of the ribbon used and the mesh of the scrim.

The ribbons are then run along the drawn spaces over all the threads except the two center ones at the side of each plain square of scrim. The colors are made to alternate.

One young girl made a sofa cushion similar to this design for one of her college friends, and she was most particular, when buying the ribbons, to choose her friend's college colors.

## Celery in Pleasing Ways

**C**ELERY is one of the finest blood and nerve remedies known, and in rheumatism almost equal virtues are claimed for it. It should be freely eaten *au naturel* whenever thorough mastication is possible; but if there is any difficulty about this, it is much better to serve it cooked in some pleasing way. The recipes given below are all very palatable and not at all difficult to prepare.

For a delicious cream-of-celery soup cut about three heads of celery in small pieces, and let them cook in one quart of water until perfectly tender. Season with salt, paprika and a pinch of sugar when the celery is about half done. Press it through a sieve and return to the fire again. Add one breakfastcupful of cream or milk, let get very hot, add a little more seasoning if needed, and serve at once with small strips of buttered bread lightly crisped in a hot oven. If milk is used instead of cream, stir in one half tablespoonful of butter rolled in two teaspoonfuls of flour, stir and cook a few minutes longer, then serve at once.

Celery baked with cheese makes an excellent substitute for a meat dish at the simple home luncheon. For each head of celery to be used allow one scant tablespoonful of grated cheese, one generous tablespoonful of butter, and salt, paprika and onion juice to taste. Wash and scrape the celery, and cut in narrow strips lengthwise, then cut the strips into rather small pieces. Put the celery into a sauce pan of slightly salted boiling water, and let it boil for five minutes; then drain off the water, and mix through the celery the grated cheese and butter, and add the salt, paprika and onion juice (just a few drops of the latter). Turn the mixture into a shallow buttered pudding dish, cover the top with a layer of grated cheese (or it may be cut in very thin slices if more convenient), and bake it in a moderate oven for about twenty minutes. Just before serving pour one cupful of good brown gravy over the top.

With roast turkey or roast goose celery croquettes are especially pleasing. For these the celery should be washed, scraped, and cut in half-inch pieces. Then let it cook in slightly salted boiling water until tender. Drain thoroughly, and add just enough cream sauce to bind the celery together. Make the sauce in the proportions of two tablespoonfuls each of butter and flour to one cupful of milk. Season the celery with salt and a dash or two of paprika, and spread it out on a platter until cold. Then shape into dainty croquettes, egg and bread crumb them, and fry in smoking-hot fat or oil. Drain on unglazed paper a minute, then serve at once.

## Turkey Croquettes

**C**HOP cold cooked turkey fine, season to taste, and mix with very thick cream sauce. Season with salt, pepper, celery salt and curry powder. When cool and stiff shape into croquettes, dip in egg and crumbs, and fry in deep fat. Serve with a border of green peas.

## Rules for the Week

**D**O EVERYTHING by the shortest, quickest, easiest method possible. Do not hurry, do not overwork, do not rush.

Monday, wash; Tuesday, iron; Wednesday, bake; Thursday, visit; Friday, clean house; Saturday, prepare for Sunday; Sunday, rest as much as possible.

Give eight hours each day to sleep, eight hours to work, eight hours to recreation and reading.

Be beforehand. Get as much work done in the forenoons as possible.

Drive your work; do not let it master you. Have pride in it.

Give the home plenty of fresh air and sunshine.

Take a five-minute nap in the afternoon. It will pay.

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**15c**

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## Our Young Folks' Department

### Cousin Sally's Letter

DEAR BOYS AND GIRLS:—

I can hardly wait to tell you about the thrilling experience that I had a few days ago.

Of course you have all heard about the wonderful tower which is completing the Metropolitan Building in New York City, the largest office building in the world. Since I am within walking distance of this gigantic building, I made up my mind to see if it were possible to obtain a permit for myself and a girl I know to ascend the tower. After asking a great many questions, one of the officials of the Metropolitan Company granted me a pass, and also assigned a man to pilot us through the intricate mazes, for you must remember that the building is not completed, and no one but workmen are allowed inside.

The day happened to be rather cold and windy, there having been a snow storm the day before. When our guide joined us, with heavy overcoat tightly buttoned, and warm stout gloves, I had the feeling that we were going to the North Pole, and found myself unconsciously buttoning my coat and drawing my furs tighter around my throat.

Thus prepared, our guide led us past trucks, sand piles, timber and busy workmen to the elevator—the only elevator which as yet is running. The elevator was a crude-looking affair, and had a bell attached to it, which rang continuously. The dimly lighted elevator, the incessant jangling of the bell, the peculiar effect produced by our going up, up, up, and the expectancy of what was before us, made me feel as though we were about to enter some mysterious realm. To add to our fears, we noticed a sign in the elevator which read:

"Passengers Ride in This Elevator at Their Own Risk."

We continued going up, up, for thirty-one stories, and what with the ringing sensation in my ears and the dizziness caused by such a high ascent, I was indeed glad when the elevator came to a stop. We were then nearly four hundred feet above the ground, or as high as St. Peter's at Rome. By looking at the picture you can see the balcony above the clock where we stood. The view which opened to our eyes was beautiful to behold, covering a radius of about twenty-five miles. Westward, far beyond the meadows and rivers, which looked like silver threads upon the ground, we could see the Orange Mountains of New Jersey; on the east we could see clear across Long Island to the Atlantic Ocean, and on the south the Atlantic Highlands and Sandy Hook. The Statue of Liberty in New York Bay, about which I told you some time ago, appeared almost at our feet.

We enjoyed the view until our faces became blue from the cold and our fingers numb, but still my friend was not satisfied. She coaxed the guide to take us higher, although he told us at first that it would not be safe to go above the thirty-first story. At length he consented, and we were again in the weird little elevator, being whisked to the forty-second story, as high as the elevator runs at present. This is five hundred and fifty-five feet from the ground. Just think, boys and girls, as high as the Washington Monument! You can imagine how desolate it was up there, with

[CONCLUDED IN FOURTH COLUMN]



Metropolitan Building, New York City



### The Circus That Came to Paul

By Fannie Medbury Pendleton



LITTLE Paul set his small teeth quite hard and hid his tear-wet cheek against the pillow. Not for anything in the world, not even for the wonderful circus itself, would he let the Little Mother see that he was crying. He knew that he could not go like other boys, who had never hurt their backs and did not have to wear plaster casts, but he longed with all his soul for a glimpse of the circus.

Once, before he was hurt, he had seen a circus. He could remember the big tent and the smaller ones, where the animals were; he could almost hear the hoof falls of the white horses, and see the beautiful ladies who rode them. High up in the big tent the acrobats would perform, and the funny clowns would crack their jokes. Paul lay quite still, with closed eyes, and in spite of himself, the big tears rolled one after another down his thin little cheeks.

"Hello, young man! Why aren't you on the way to the circus?" The voice was gruff but kindly, and the man's face softened as he realized the probable meaning of the stiff little form in the invalid chair.

Paul's eyes popped wide open. "Hello, yourself," he tried to say as cheerfully as possible with such a very large lump in his throat.

The man opened the gate and came over to where he sat under the apple tree.

"What's the matter, son?" he asked so kindly that Paul forgot he was a stranger.

"It's my back," he explained. "I can't walk, and I couldn't stand it to ride, even if there was any one to take me, which there isn't. I saw a circus once," he finished proudly, with a little break in his voice. "Now, if I was in a fairy book, a fairy godmother would come along and wave her wand and it would be all right; but fairies are scarce around here," he added, with a brave, little laugh.

The stranger looked at him quite thoughtfully for a moment, then he slapped his knee.

"I have it," he cried, and a twinkle shone in his eye. "You wouldn't think now, would you, that I was a fairy godmother?"

Paul laughed outright. "Fairy godmothers aren't men," he said.

"Well, no," said the stranger, with a hearty laugh, "but fairy godfathers are, and I am a fairy godfather. At half-past six be out here in your chair, and I will come and wave my wand, and you shall see the circus. Cheer up now."

There was something so convincing about this big, bluff man that Paul cheered up immediately, and waved a jolly little wave as he walked briskly away in the direction of the town. But when he was gone, and the only sound was the humming of the bees in the

apple blossoms, Paul began to believe that he had dreamed it all. Still, the face of the stranger was pleasant to remember.

"I think it must have been a dream," said the Little Mother when she brought him his supper and sat down beside him to eat her own. They often picnicked there in the yard, these two, for the doctor had said that Paul must sit out of doors all day.

They were just finishing, when they heard a band, and around a turn in the road came a wonderful procession, followed by a crowd of small boys. There was the band, but what was that behind it—that big, bulky something that paced slowly along? Paul almost held his breath. It was, it really was, the circus elephant. Then came a big wagon with something in it that roared, and another wagon full of monkeys, then a group of white horses ridden by pretty ladies, and, last of all, a chariot driven by a funny clown.

Just then the fairy godfather opened the gate, and he had a little monkey on his shoulder.

"Hello, son!" he called cheerily. "Didn't I tell you that you should see the circus?" He wheeled Paul's chair up to the gate, and brought a chair from the porch for the Little Mother, then he waved his hand.

"The circus will now begin," he said. First of all, the elephant did his tricks, while the clown capered about, and the monkey sat where Paul could stroke his head.

Then the pretty ladies rode the white horses up and down the road, making them jump over the fences while they stood on the horses' backs and waved gaily to the little boy, and after that came the tumblers.

The band played, and the lion roared, and Paul laughed and clapped his thin little hands, and was perfectly happy. Once he leaned over and pinched the fairy godfather.

"You aren't the vanishing sort, are you?" he asked wistfully.

"Not much, son," said the big man, swallowing hard, as though he had dust in his throat.

At last it was over, and everybody came to say good-by to Paul, and the line of small boys on the fence cheered and cheered. The fairy godfather was the last to leave. After the rest had started toward town to prepare for the evening performance, he came leading something soft and white. It was a fluffy puppy, and already it could do several tricks. "This is for you, Paul," said the big man. "He will be company for you, and when the circus comes back next year, I shall surely come to see you."

"How can we ever thank you?" said the Little Mother.

"That is all the thanks I want," said the big man, pointing to Paul's pink cheeks and happy eyes. Then he turned to the boy.

"Remember, he said, 'that I'm your fairy godfather from now on. And wasn't it a joke on you that all the time I had a circus up my sleeve?'"

### Post-Card Exchange

Orpha Bolender, age fifteen, R. R. No. 1, Felicity, Ohio. Mamie Brown, age fourteen, Clatsop, Oregon. Mary Camp, age thirteen, Toddville, Iowa. Jennie Cooper, age sixteen, R. F. D. No. 4, Tiffin, Ohio. Lizzie Day, age fourteen, Argyle, Florida. Waveland Dinius, age fifteen, R. F. D. No. 4, Columbia City, Indiana. Lovilla Kehr, age thirteen, R. F. D. No. 2, Saline, Michigan. Susie Kemper, age fourteen, R. D. No. 2, Dresden, Kansas. Jennie Morton, age eleven, North Middletown, Kentucky. Helen F. Osterhaut, age twelve, Wynantskill, New York. Alma Palmer, age thirteen, R. F. D. No. 4, Dundee, Michigan.

### A Prize Poem

Christ is Born

BY JOE SURFT, AGE FIFTEEN

In the far, far East there was a star,  
A star of God's own love;  
The shepherds came from field afar  
To follow this star above.

They came to where in a manger lay  
The chosen one of God;  
They praised and thanked on that blessed day  
The Kingdom of our Lord.

Now let us think on Christmas morn  
Of that one blessed day,  
When far in the East a child was born,  
Who in the manger lay.

### Cousin Sally's Letter

[CONTINUED FROM FIRST COLUMN]

no flooring or walls, and the workmen stepping recklessly from beam to beam, not appearing to have any thought of danger where a misstep would mean a life. These, indeed, were brave men, and each time they slid down a ladder I clenched my hands and held my breath.

On one side there was a tiny window, and we took turns stepping upon loose boards and peering out into the streets below. People looked like ants, streets looked like narrow lanes, and the buildings looked almost like toy models. And just to think, one will be able to go even higher when the tower is completed! It will be fifty stories high, or seven hundred feet from the ground. The whole Metropolitan Building covers an entire block and is the largest and highest office building in the world. The Singer Building, pictured below, is six hundred and twelve feet high, so you can see that the Metropolitan Building will be eighty-eight feet higher.

You can readily believe that I was much relieved when we started on our downward journey. Just think, a continuous drop of nearly six hundred feet, and even though my friend and I would not have missed the experience for anything, we were heartily glad to again be on terra firma.

The tower will be finished this coming spring, and if any of you boys and girls come to New York, I hope you will make it a point to go up in the tower if possible, and remember that Cousin Sally was up there when it was in course of construction.

Hoping that you will write to me very often, and with my love to all,

Ever faithfully,  
COUSIN SALLY.



Singer Building, New York City

### Prize Winners in Verse Contest •

Ida Leatherman, age sixteen, Moundridge, Kansas, silver purse; Helen Gottfredson, age ten, Salina, Utah, set of dishes; Joe Surft, age fifteen, Philipsburg, Pennsylvania, penknife; Walter McKittrick, age twelve, Delta, Ohio, a game.





## Our Girls at Home

### A Girl's Place in Her Home

ONE reason that so many girls are discontented at home is that they have not found just their happy niche of usefulness. Most of us want to do and be too many things. Choose some one place of usefulness in your home, fill it as well as you can, and stick to it.

I know a lovely girl whose mother said to me, "Marion is such a comfort, I always know where to find her."

Suppose, for instance, you choose to be the sympathetic person in your home. Very well, that is a lovely and useful home career for any girl; now bend all of your efforts toward sympathy. If you are going to be a success in this lovely rôle you cannot afford to be thoughtless or forgetful or impatient. The romping, teasing brother must not be rebuffed; the little sister who comes with her broken doll must not go away from you uncomfôrted; the big brother who comes in looking troubled must know that you would like to lighten the trouble; the father and mother must feel that even if the rest do not always comprehend, at least you will understand. Never mind if the opportunity for sympathy is small—it may be only mending the rip in the baseball glove that that romping little brother of yours brings you to mend—you but let him be sure of your understanding and your interest, and he will feel that he can bring more serious matters to you by and by. Let people at home know where to find you.

Choose your own place of usefulness in your home, be the sympathetic sister, the cheerful member of the family, the thoughtful one, the practical one, the helpful one, whatever you like, but live up to your choice day by day, and your life will bloom into new loveliness and happiness.

### A Packing-Box Couch

THE girl who has a room of her own, and who wants to make it as attractive as possible, will be glad to know that a packing box can be transformed into a couch. Nowadays a room looks quite incomplete without a couch of some kind, and one like this is sure to add to the appearance of a room.

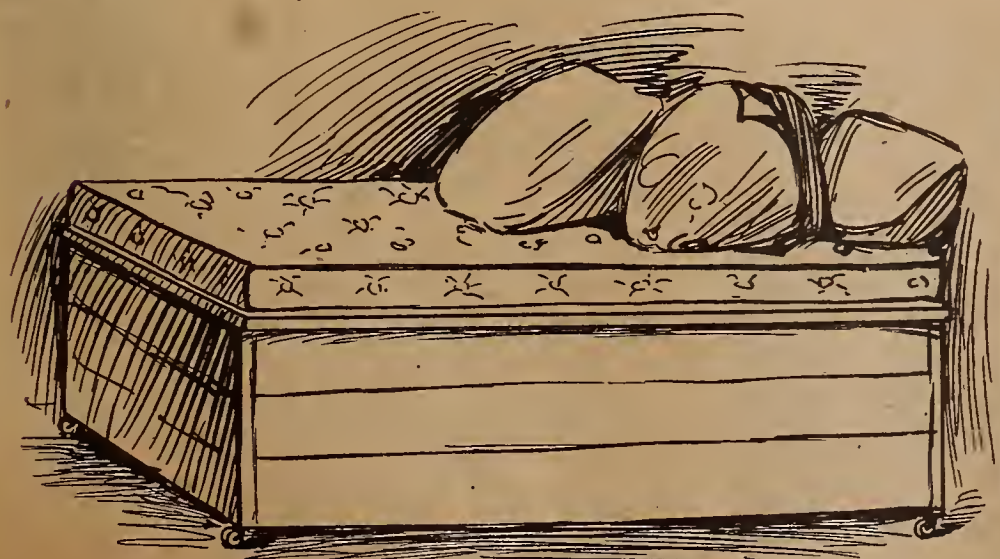
In addition to the packing box, all that is necessary in its making are four casters, some brown paint or stain, and a brown denim mattress. These mattresses are very inexpensive and can be bought in the upholstery department in any of the large shops, or they can be made at home.

If one wishes, a cover may be thrown over the couch, to conceal the sides and front. These couch covers come in very unusual and artistic designs. Some are hemmed, while others are finished with deep fringe.

Of course, the lid is hinged onto the box, thus making the box a splendid receptacle for clothes and odds and ends.

If your father or big brother is handy with the hammer and paint brush, he could, no doubt, make a couch similar to this one in an evening, and it would be time well spent.

A few cushions artistically arranged will add to the comfortable appearance of the couch.



Attractive Couch for a Girl's Room Made From One Large Packing Box

### For Beauty Seekers

A BAD-TEMPERED girl can never be beautiful.

Cultivate graciousness, for it is one of the greatest beautifiers.

Daintiness has come to be the modern woman's chief charm.

Harmony in dress pleases more eyes than costly gewgaws.

A well-balanced admiration of one's self is a great beautifier.

Don't wait until to-morrow to think of the graceful form and comely face, for by that time middle age may settle and formidable crow's feet will be with you to stay.

No girl need lack some kind of beauty. If Nature has denied her a beautiful face, she can make up for it by acquiring a wonderful grace of form or manners that she can be the envy of all woman-kind.

### Letter-Writing Etiquette

TIME was when, if any other color than white was used for one's personal stationery, it was a sign of ill breeding. But to-day it is not considered bad form to use tinted paper, provided the colors are of a delicate tone. Soft shades of blue gray and violet may be selected, but never under any circumstances should one use paper of a glaring red, indigo, yellow or lilac hue with a highly glazed finish and edging. White is and always will be good style.

It is exceedingly bad form to fold paper into outlandish shapes to make it fit into an envelope that is too small. Then, too, letters should never be written in purple, blue or white ink—the refined woman uses black only—and of course it goes without saying that a personal letter written in pencil is inexcusable.

Write your letter as plain as you possibly can, always remembering that a well-written letter is a joy to the recipient. Nothing looks worse than a couple of lines crowded in at the top or bottom of the sheet. If you

The average court-plaster case is never very pretty. The one illustrated here is different, because it represents a very pretty girl. It is canvas, with the pretty girl done in water-color paints. The back of the case is a pocket large enough for the court plaster to fit in.

can't get on one sheet all you want to say, use another. A generous margin should be left on each side of the paper and each line equally spaced. Never make the mistake of forgetting to date your letter.

### How to Keep a Friend

If you want to keep a friend, do not get too intimate with her.

Have your own thoughts and permit her to have hers.

Do not demand too much of her in the way of confidence, and do not be too aggressive, wanting to know why she does not do the same as you do.

If you think your friend's style of dress is not beautiful, do not tell her. You will only offend her, because deep in her heart she is convinced that she knows a great deal more about it than you do.

Do not find fault with your friend's friend, and do not expect to be the only one owning a corner in her heart.

To sum it up in one sentence, preserve the courtesy of the beginning to keep your friendship to the end.

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By your living expenses we mean what you pay everywhere, (unless you are a Larkin customer), for such things as Soap, Tea, Coffee, Spices, Starch, Baking Powder, Carpets, Crockery, Furniture for the Kitchen, the Parlor, the Bedroom. Women's Suits, Coats, Furs, and a thousand other necessary articles some of which you must buy every time you go to town. We show you where and how to buy for \$10.00 what you have always paid \$20.00 for, and to prove this to your own satisfaction we give you

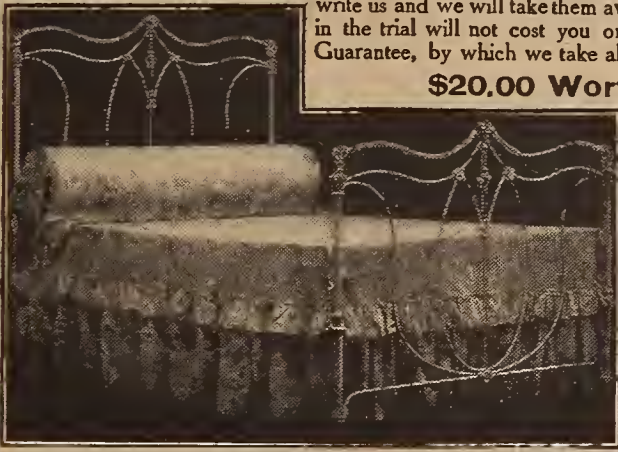
### 30 DAYS' TRIAL—NO MONEY IN ADVANCE

You may select any Family Supplies you wish from our Big Catalogue to the amount of \$10.00 and any one of our \$10.00 Premiums and we will ship same to you promptly. If, after 30 days' trial, you are not entirely satisfied and delighted with the Larkin Family Supplies and Premium, write us and we will take them away. The Family Supplies used in the trial will not cost you one cent. This is our iron clad Guarantee, by which we take all of the risk and you none.

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## The Snake Dance of the Hopi Indians

By Charles Alma Byers

EVERY tribe of the American Indians may be said to have its peculiar customs and ceremonies. There need be no exceptions made. Doubtless the most interesting, however, of any of the ceremonies they observe to-day is the Snake Dance of the Hopis. There are other tribes that still hold their rain dances, their corn dances, and many other such ceremonies, but none of these attracts so much attention from tourists and students as does the Snake Dance of this tribe of Pueblos that dwell peacefully within the Province of Tusayan, in the northern part of Arizona. No other present-day Indian ceremony embodies so much apparent danger for



The Medicine Women of Wolpi and Their Snake-Bite Medicine

its participants, and consequently presents such a weird spectacle, as does this one.

The Hopi Indians, or Moki, as they are commonly called by their white brethren, because Hopi means "good" and Moki means "dead," have never been rovers, nor are they warlike in inclination. They have dwelt peacefully in this semi-desert region, known as the Province of Tusayan, since first discovered by the early gold-hunting Spaniards. And they have changed or advanced but very little since that time. Their modes and customs are much the same to-day as they were then. The implements with which they till the dusty soil are just as crude. The government has time and again sent them plows, but instead of using them in the fields, one finds them hoisted as ornaments upon the roof of a hut or converted into peculiar chicken coops. In fact, the Hopi is a poor imitator of the white man in every respect. He still clothes himself in only kilts and bead-covered moccasins, and decorates his person with eagle feathers and gaudy paints as he did three hundred years ago. His old superstitions and ceremonies are observed to-day with the same earnestness as they were by his ancestors of many generations ago. They have many divinities that must be honored, and the various ceremonies they observe annually are gone through with that purpose at heart.

The Snake Dance is only one ceremony of their many, but of all, it is the most elaborately carried out and is the most fascinating to visitors. It is held at some one of the seven villages of the province during the latter part of August of each year, and there is always a large cosmopolitan crowd of sightseers that wends its way the hundred miles northward from the Santa Fe railroad, across the Painted Desert, to be in attendance.

This dance is really a prayer for rain—a sort of a pagan's prayer to certain divinities whom these people believe to exist and to have the power to send rain to their parching fields. As observed to-day it is a nine-day ceremony. It is only the last day, however, that is really made public. On the first day the town crier, directed by the Sun priest announces its commencement. All the head priests then enter the underground "kivas" and engage in the secret, mysterious rites that lead up to the ceremony's culmination day. Younger priests now and then dart forth from a "kiva" carrying prayer sticks to all neighboring springs, or shrines of worship. There are others that for four days gather the snakes from the fields, taking rattlesnakes, bullsnakes or any other kind that may be found.

These snakes thus collected are borne alive and squirming to the underground "kivas." They are placed in earthen jars, where they are kept in captivity until the eighth day. In accordance then with that old legend of Tiyo and the two

maidens, their heads must be washed in readiness for tomorrow's dance. This act belongs really to the secret rites, but occasionally a white man is favored by the snake priests by being permitted to enter the "kiva" and witness it. The snakes are taken from the jars by the priests, who hold one in each hand. There is a short prayer by the head priest, and then the priests who hold the squirming reptiles seat themselves on the floor around bowls of water. A low humming sound now breaks forth, and the bodies of the priests sway back and forth over the bowls of water. This humming or chanting grows louder and louder, until it is almost deafening, and then, as the noise suddenly ceases, the heads of the snakes are submerged in the bowls of water. They are now hurled to one corner of the "kiva," where other priests stand in readiness, and with short eagle-feather whips they are rolled about in the sacred sand of a peculiar altar. When all of the snakes have thus been treated they are ready to take part in the dance.

The ceremony on the ninth day, the day of the dance, begins with the snake race very early in the morning. This is simply a contest for honor only between a number of fleet runners who are on their return from the fields with a collection of green corn and melons for the feast which is to be held in the evening, after the dance.

The Snake Dance does not commence until late in the afternoon, and after the race the crowd of visitors has many times shown impatience. When, however, they now glance toward the "kiva" and behold a marching column of gaudily painted Indians, they become excited and interested, for they know that the dance has begun. This first column to enter the dance plaza is known as the Antelope priests. They are clad only in cotton kilts and moccasins, but as ornaments foxskins hang from the waist behind, and about their necks, knees and arms dangle rattling shells and turquoise. The unclothed portions of their bodies are covered with red paint, over which run white bands and zigzag stripes.

They enter the plaza marching with majestic mien, and pass around it four times to the left. Then, lining up before the "kisi," a cottonwood bower, with faces outward, they await the Snake priests, who enter the plaza a few seconds later. The latter also pass around the plaza four times to the left, and then line up facing the Antelopes. The Snake priests are clothed and decorated very much the same as the Antelope priests, except that their kilts, moccasins and paints are of brighter colors and more elaborately arranged.

While they marched around the plaza the Antelope priests had been making a dull sound with rattles which they held in both hands, but as the Snake priests line up before them they pause for a second, and on beginning again, a chanting accompanies the rattles. The bodies of the priests sway back and



A Snake Priest Entering a "Kiva," Where the Snakes Are Kept

forth, and the chanting grows louder and louder. Then there is another hush, and the lines of priests suddenly break up into groups of three, each of which contains what are known as a "carrier," a "hugger" and a "gatherer." As the chanting begins again the "carriers" kneel before the "kisi," or cottonwood bower, and a priest on the inside presents him with a live rattler. He springs up, and while the "hugger," with an arm around his neck, keeps a feather whip waving continually before the snake's head, which he holds sometimes in his hands and sometimes in his mouth, he dances or hops and jumps around the plaza. After four times around, he drops the snake to the ground and the "gatherer" picks it up.

After all the snakes have been danced with, the head priest draws a circle in the center of the plaza and the snakes held by the "gatherers" are thrown into it. At a signal a wild scramble for the reptiles ensues, and when they are all gathered from the circle the priests who were fortunate enough to get one or more of the squirmers dash off down the sides of the mesa, carrying them back to their hiding places, so that they may bear their petitions to the rain god of the underworld.

On returning from carrying the snakes to the fields, the priests appear before the medicine women and partake of a dark, mysterious liquid. What the ingredients of this medicine are no white man knows. It is supposed, however, to contain, among other things, the juice of the roots of the Gaura parviflora plant. It is known that this is sometimes used by these Indians as an antidote for poison from a snake bite. Not all of the priests, if any, who partake of this medicine after a dance, however, have been bitten by a snake, for they are careful in handling them, even if they do not seem to be. They will never touch a rattlesnake while it is coiled, for they can strike only when in that position.

A green-corn feast follows the dance, and every Moki, or Hopi, is happy. Then they go back to their humdrum life for another year.



The Finish of the Snake Dance. Each Priest Has a Handful of Squirming Snakes



## Lincoln's Three Romances

IN SPITE of all that cynics have said, a man's first love—that is, a man's love, not a boy's—is often his deepest, truest love; and Abraham Lincoln, with his strong, simple manhood and great, tender nature, through all his crowded life kept ever with him the sad, sweet memory of his first romance.

When, in 1831, the future President came to New Salem, Illinois, to open Offutt's general store, among his first acquaintances was James Rutledge, a pleasant, well-educated man from South Carolina, one of the founders of the little pioneer village on the Sangamon and keeper of the local tavern. The third of Rutledge's nine children, Ann Mayes Rutledge, was then a beautiful girl of nineteen, whose brightness, loveliness and gentle, kindly ways made a deep impression on the tall young clerk; but Ann, he learned, was already betrothed to John McNeill, an enterprising young man from New York, so Lincoln was doubtless glad of the distractions furnished by a captaincy of a company in the Black Hawk War and a subsequent term in the Illinois Assembly.

McNeill had prospered both as a merchant and farmer; but in 1834 he sold his half interest in a store and announced his intention of visiting his family in the East. Before departing he confided to Ann that his real name was John McNamar. His father, he said, had suffered a disastrous failure, and he, being the oldest son, had run away from home, assuming a fictitious name to prevent his being traced, and had come West in the hope of retrieving the family fortunes. Now he would bring out his father and mother and install them on his farm; "and then," he told Ann, "you and I will be married."

McNeill left in the spring, traveling on foot and horseback. Not until the fall did Ann hear from him; his letter explained that he had been ill of a fever and had been unable to write. But subsequent letters came only at long intervals and at length ceased altogether. Then Ann, in her distress, repeated to her friends the story her betrothed had told her. With few exceptions they pronounced it a fabrication, and denounced McNeill or McNamar as an adventurer, an impostor, and not improbably a fugitive from justice; and finally the poor girl could only believe that her lover was either dead or false.

Lincoln, having completed his first term in the assembly, returned to New Salem in 1835 as postmaster and deputy surveyor, and now felt at liberty to declare his love. It was long before Ann would listen to his suit, but in the spring she consented to become his wife. They were to be married the following year, when she had finished a final term at school and he had been admitted to the bar. But the memory of her former betrothal, a haunting fear that she might have wronged McNamar, overshadowed her happiness. She became dangerously ill, and in a few months her condition was hopeless.

Lincoln, who had not been allowed to see her, was sent for. The lovers passed an hour alone together in sad parting, and shortly afterward Ann died.

Lincoln's grief was terrible; at times his melancholy seemed to border on madness; he was often seen walking alone by the river, muttering to himself, and his friends kept close watch upon him. "I cannot bear the thought of the snow and rain upon her grave!" he groaned on a stormy night, as he sat with his head bowed upon his hands, the tears trickling between his fingers. His friend Green took him to his log cabin a little north of New Salem, and in the quiet of the woods he gradually regained his self-control; but often he would visit his sweetheart's grave in the Concord cemetery, seven miles from town.

Two months after Ann Rutledge died, McNamar returned in a prairie schooner with his widowed mother and her other sons and daughters. His conduct to his betrothed is still unexplained, and her death seems to have affected him but little, as he married within the year. Lincoln never forgot. In later life he said to a friend who questioned him, "I really and truly loved the girl and think often of her now. And I have loved the name of Rutledge to this day."

It is difficult to regard Lincoln's affair with Mary Owen in 1837 as "a romance," for there seems to have been little affection on either side. He felt bound to the lady through an ill-considered remark made to her sister, and would certainly have married her because of a sense of obligation. But in a characteristically disinterested letter reviewing his unpromising prospects he again offered

himself, but advised her to reject him—and she took his advice.

Brilliant, witty, ambitious and spirited Mary Todd strongly attracted Lincoln, as she had his future political rival, Stephen A. Douglas and many others; on the other hand, she was as strongly attracted by him and, moreover, cherished a strong assurance of his future greatness. She was of a well-known Kentucky family, and Lincoln was looked down upon by some of her connections for his uncouthness and plebeian origin; however, some time in 1840 they became engaged. But the young lady was of a lively disposition and more than a little jealous; while Lincoln, of a graver nature and disinclined to the social diversions of Springfield, was rather neglectful, often failing to escort her to merry-makings, as in duty bound. After many quarrels and misunderstandings, on January 1, 1841, Lincoln broke the engagement under the conviction that their union could bring happiness to neither.

Lincoln's course was largely due to the fact that laboring under one of his terrible fits of depression, he had come to believe that marriage could only bring him sorrow; but a happy letter from his recently married friend Joshua Speed, who had entertained like misgivings, somewhat changed his point of view. The following summer, friends by a clever ruse brought Lincoln and Miss Todd unexpectedly together, and frequent meetings caused them to think a little better of one another.

About this time befell an incident of which Lincoln was afterward heartily ashamed, but which went far toward healing the breach. He had published in a local paper a sportive letter signed "Aunt Sally," in which he amused the community somewhat at the expense of a political opponent, James Shields, Auditor of State. Now Mr. Shields had been rather pronounced in his attentions to more than one of the young ladies of Springfield; and so Miss Todd, with several of her sprightly friends, concocted and published another letter, in which "Aunt Sally" proposed marriage to the gallant auditor, following this with some doggerel verses in celebration of the alleged wedding.

Shields was furious. He demanded the name of the author of the lampoons from the editor of the paper, who appealed to Lincoln. "Give him my name," said Lincoln, unwilling that the ladies should figure in the affair. The result was a challenge from Shields, which Lincoln accepted, naming cavalry sabers as the weapons. The duellists met on an island in the Mississippi, but friends intervened and the affair was amicably adjusted, with much merriment and "with honor to all concerned."

Before long the engagement was quietly renewed, and on November 4, 1842, Lincoln and Miss Todd were married at her home in Springfield. There is something pleasant in the thought that the woman who sincerely loved the gaunt, ungainly young lawyer and who so implicitly believed in his greatness was at his side when her highest prophetic hopes for him were fulfilled. Still pleasanter is the memory of Lincoln's unflinching thoughtfulness toward his wife. When his fellow townsmen crowded about him in the streets of Springfield, shouting the unexpected news, "Mr. Lincoln, you're nominated!" his first thought was of her. "My friends," he said in his homely fashion, "I am glad to receive your congratulations, and as there is a little woman down on Eighth Street who will be glad to hear the news, you must excuse me until I inform her."

So the end of Lincoln's romance is summed up in his own terse response to enthusiastic demands for a speech as he stood on the balcony of his hotel, the "little woman" beside him:

"Well, here am I, and here is Mrs. Lincoln—and that's the Long and Short of it."

ARTHUR GUTERMAN.

### A Midnight Pardon

A CONGRESSMAN who heard that a friend of his in the army had been court-martialed and sentenced to be shot, failing to move Secretary Stanton to grant a pardon, rushed to the White House late at night, after the President had retired, and forced his way to the President's bedroom, and earnestly besought his interference, exclaiming earnestly, "This man must not be shot, Mr. Lincoln. I cannot allow him to be shot!"

"Well," said the President in reply, "I do not believe shooting will do him any good. Give me that pen." And so the pardon was granted.—From "Abraham Lincoln," published by T. Y. Crowell & Co.

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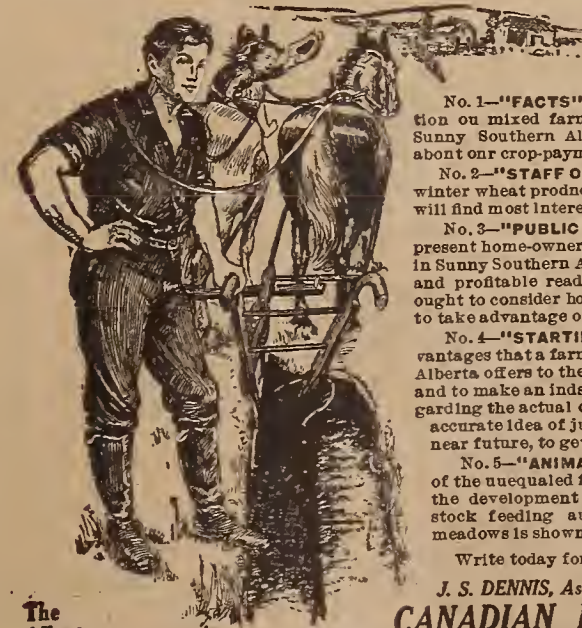
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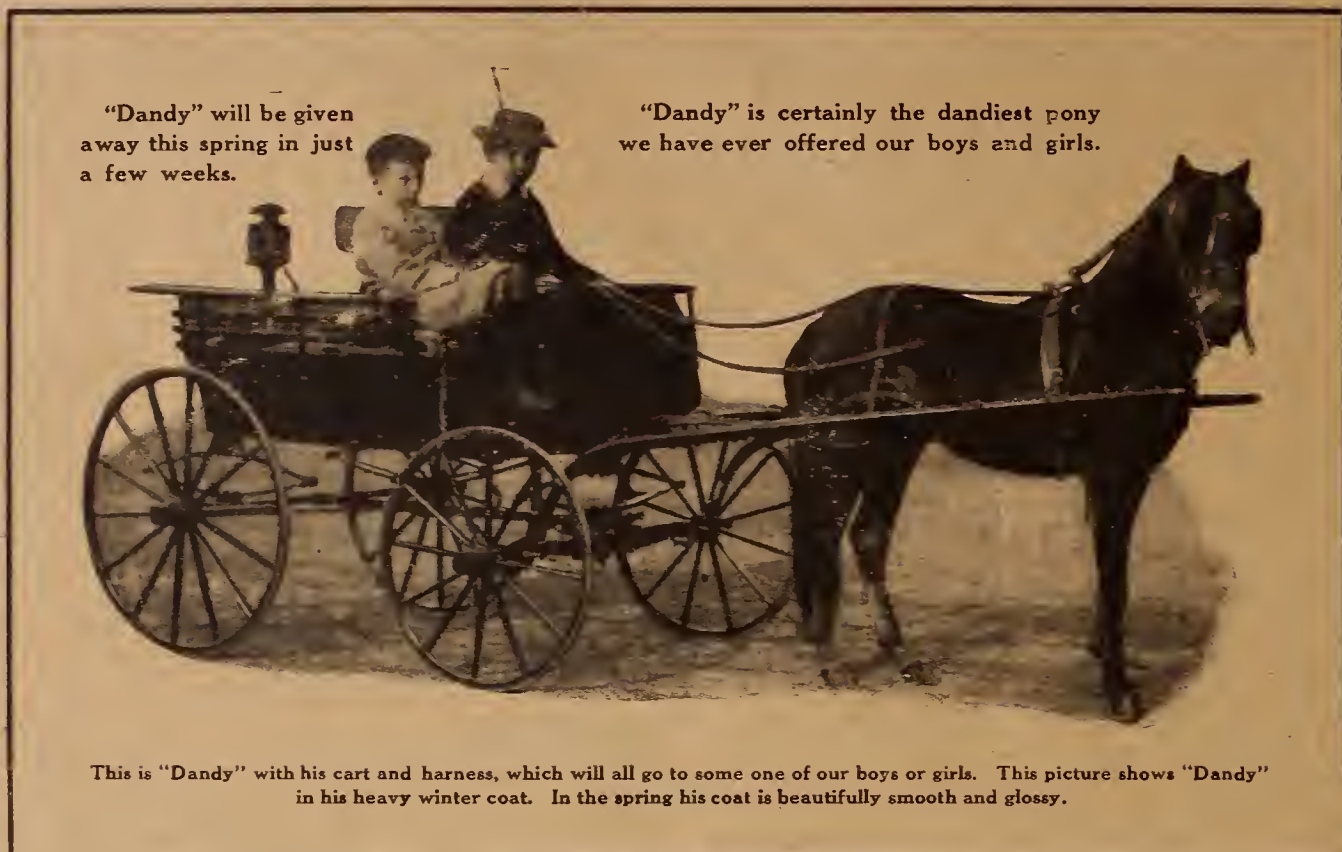
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In addition to all the ponies, the pianos and the liberal cash commissions, there are one hundred Superb **Grand Prizes** and a great many other beautiful prizes. FARM AND FIRESIDE guarantees that this entire contest is exactly as pictured, described and represented; that the prizes will all be promptly given at the end of this contest, May 31, 1909, and that the contest is absolutely bona-fide, reliable, and honest in every way. **Moreover, FARM AND FIRESIDE guarantees that absolutely every contestant will receive a valuable prize.** You can't lose if you start.

## How to Get "Dandy"

To insure the absolute fairness of this contest, and to make sure that every boy and girl who is really in earnest will get his or her full share of the large amount of money we are spending on prizes, I am going to bar out those who are simply curious and not in earnest. To do this I am going to require to credits or subscriptions before I enroll you toward a pony. This will make it all the easier for any boy or girl who really wants "Dandy," as it will keep out the lazy and curious ones.

But first of all—**right now**—cut out this coupon (or a postal card will do), sign your name and address, and send it to me **to-day**. I'll answer you immediately, and send you **full information** about this fine contest and also a great many beautiful pictures of the ponies, and lots of other pictures and things that will surely please you. Don't delay—write me **to-day**. Yours for "Dandy,"

The Pony Man.

P. S.—If you want to make sure of a prize the very first thing, don't wait to hear from me, but start right out as soon as you have sent off the coupon, and get ten of your neighbors or friends to each give you 25 cents for a full year's subscription to FARM AND FIRESIDE. Keep 5 cents from each of these subscriptions as your commission, and send the rest with the names to us. You will then be a full-fledged contestant and right in line for "Dandy," and I will put you down for a prize **right then**, so you will be absolutely **sure** of it. So hurry and get the ten subscriptions. You can do it in a day or two if you hustle.

**THE PONY MAN OF FARM AND FIRESIDE**  
SPRINGFIELD, OHIO

Jan. 25

Dear Pony Man:—

I want to get "Dandy." Please write me by return mail, telling me how I can get him, and send me all the pony pictures, the other pictures and the valuable information.

Name.....

St. or R. R.....

Town.....

Date..... State.....

CUT THIS COUPON OUT—FILL OUT AND MAIL TODAY



# Sunday Reading

## Sunshine and Shadow

**O**FTEN in the cold, bleak days of winter, when all the world is chilled, it seems as though the summer time would never come, with its flowers and fruits, its birds and bees and butterflies and soft, balmy breezes. But patience—and it is ours, this wonderful, mysterious summer time.

It is that way with life. We very often experience dreadful winter times in our hearts and will not listen to the old saying that "every cloud has a silver lining." No; we are sure that our sorrow has come to stay. Other people perhaps are not so sensitive as we (we tell ourselves) and do not feel so keenly. It is all very well for them to say brighter days are coming. We know differently.

But they are right, these wise friends of ours. God does not send us sorrow. He is only too eager to lift our burdens from our shoulders if we will but let Him. He is all love and goodness to us, whether we believe it or not. Our fault is lack of confidence in Him, to whom all things are possible.

In wandering through a dense wood we note the thin shafts of sunlight struggling through the leaves, and perhaps some gigantic oak throws a deep, broad shadow on the ground. We know that the sun still shines as brightly as ever, but in this silent, dark wood, where the sun rarely penetrates, little creatures may live who think (if they think at all) that there is no sunlight in the world—nothing but shadow.

If we could get out of our narrow ruts and take a bird's-eye view of ourselves, so to speak, we would find that we are living much as these woodland creatures live—believing in the shadow and doubting the sunlight. The fault is not the sun's, but ours. Come out into the sunlight of God's love and you will find it strong enough to dispel all shadow.

## A Fresh Start

**W**HATEVER else you resolve to do, determine that nothing shall enter the door of the new year which cannot in some way help you add to your happiness, your efficiency. Resolve that you will leave all of the old enemies of your success and comfort and happiness behind.

Why will people insist upon clinging to the disagreeable, the unfortunate; upon dragging along with them such loads of fear, of worry, of anxiety; such loads of mistakes and blunders and failures and misfortunes? Why do they insist upon keeping the things alive which should be dead, buried and forgotten?

No matter what slips you have made, no matter if you have made a fool of yourself this last year, forget it, blot it out of your mind. Remember that every time you rehearse these unfortunate experiences you only revive the sad memories, and make them so much more real to you and so much harder to get rid of and to forget.

It is wonderful what a strange fascination one's mistakes, failures and unfortunate experiences have for most people. I know people who seem to take a morbid delight in sitting for hours and thinking over the terrible things that have happened to them; rehearsing their old troubles, their misfortunes, their mistakes. A wound which is constantly probed never heals.—Success Magazine.

## Look Pleasant

We cannot, of course, all be handsome, And it's hard for us all to be good; We are sure now and then to be lonely, And we don't always do as we should.

To be patient is not always easy, To be cheerful is much harder still, But at least we can always be pleasant If we make up our minds that we will.

And it pays every time to be kindly, Although you feel worried and blue; If you smile at the world and look cheerful,

The world will soon smile back at you. So try to brace up and look pleasant, No matter how low you are down, Good humor is always contagious, But you banish your friends when you frown.

## Losing by Gaining

**H**AVE you ever thought that by taking another's burdens and trials to yourself, and helping this friend to bear his misfortunes, your own burdens have grown lighter? It is paradoxical, but it is true. Try it.

## Be a Helper

**A**S OUR hearts are, so shall our lives be. God gives us gladly, freely, of His love, and we should not be wasteful of this glorious gift, but should treasure it carefully in our hearts. God's love is like the sun and ours is like the moonlight, which is bright only by reflection from the sun.

The more love and strength that we accept from the Heavenly Father, the greater will be our power to give "good gifts" of love and sympathy and spiritual strength. If we could know, even in the least degree, how much untold good we might do by keeping our spirits high and our faces bright and lending a helping hand along life's way, I am sure that we would not waste another precious minute.

Are you a dawdler through life? Now is the time to change your course and be a helper! What a good thing it would be for the world if each of us were to take for our life's motto: "I shall help somebody or some thing in some way each day that I live." The millennium would be almost at hand, would it not?

## Do Not Become Hardened

**T**ELL me what becomes of the hard young man, proud of his unsensitivity, even pretending to be more unsensitive than he is, incapable of enthusiasm, incapable of tears; what becomes of him beside the knightliness of a sorrow such as that? The little child is sensitive without a thought of effort. The old man often feels the joy and pain of men, as if the long years had made it his own. But in between, the young man is hardened by self-absorption; when all the time he ought, with his imagination, with his power to realize things he has not been nor seen, to go responsive through the world, answering quickly to every touch, knowing the burdened man's burden just because of the unpressed lightness of his own shoulders, feeling the sick man's pain all the more because his own flesh never knew an ache, buoyant through all his unconquerable hope, overcoming the world with his exuberant faith, the farthest from sentimentality by the abundance and freedom of the sentiment which fills him. Be sure that there is no true escape from softness in making yourself hard. It is like freezing your arm to keep it from decay. Only by filling it with blood and giving it the true flexibility of health, so only is it to be preserved from the corruption which you fear. Be not afraid of sentiment, but only of untruth. Trust your sentiments, and so be a man.—Phillips Brooks.

## Declining to be Limited

**N**O MAN ever expected too much of God. Many a man cuts himself off from much that God would do for him, by expecting too little. We honor God when we refuse to limit our expectations of his works and his goodness. One prayed well "for the incentive of great expectations—that I may not be overcome by discouragements and 'all that can be expected' calculations." The phrase "all that can be expected" has no place on the lips or in the heart of any child of God. It is a deadener of energies and a destroyer of hopes, and is complacently based on man's ability to forecast God's plans and powers. God's omnipotence will go right on working, whether we expect it to or not; but it will not accomplish nearly as much for the man who thinks he sees the end of it as for the man who knows that it has no end.

The incentive of great expectations is all that is needed to keep a man persevering where the man without it would stop. God can do most for the man who believes most of God.—Sunday-School Times.

## Being One's Self

**T**O BE our best selves should be our ambition, not to be somebody else. A carver needs tools of different sizes and temper and shapes of cutting edge. The perfection of his work depends on their not being all alike. So God may use us to help conform humanity to the image of His son. We owe it to that work to respect our individuality and to keep ourselves at the highest point of efficiency. To be used in the perfecting of one line in that work is reward enough for any tool's being itself and being worn out in the work.—Maltbie Davenport Babcock.

## Your Place in the World

**E**VERY living thing on this earth was created by God for some definite purpose. The spider spinning on the garden wall has its special errand, the insect fluttering in the breeze is accomplishing some divine decree and the bird chirping merrily on the apple bough was given life for some special reason. When we consider that in the great scheme of the universe even such a small thing as a fly was taken into consideration, how much greater must have been the consideration that was given to man. I firmly believe, that each one of us was put here on earth with some particular purpose to fulfil or some message to carry.

God did not make any man to be a blank, a nothing, and when a man discovers that his life is a blank, then he knows that he has not been making of himself all that God would have had him, that he has not found his "place."

We very often struggle along, wishing we could do this or that, hoping that the time will come when we may accomplish some great thing. It does not always seem worth while to put our best efforts into the task at hand. But this "place" of ours, this niche which we hope to fill so gloriously, may be just the corner that we are occupying so apathetically to-day. In looking for the big and glittering opportunity we may have neglected the one that is right at our doors. It is all very well to "hitch your wagon to a star," but be careful not to forget the small things which you are able to do right here at home. If you believe you have not yet come into your own, and see no chance of being able to alter conditions, then make your niche fit you. A person may be broad in narrow surroundings, just as one may be narrow in broad surroundings.

Try to find out what your own niche in the world is, and fill it to the best of your ability. Do not look always for the high and mighty places in the world. Remember that the lower niches and smaller corners have to be filled, too. It is better to be a good chimney sweep than an unworthy king.

I once knew a woman, beautiful, refined and cultured, who had lived all her life in a great city where there was every opportunity for her to broaden her mind by hearing the best of music, attending the finest lectures and seeing many of the art treasures of the world. The time came for her to leave the city that she loved and all that it held for her and go far out into the country to live. She said to me before she went, "I feel as though I were leaving life itself behind me. There is nothing for me out in that wilderness but barren rocks and gray skies."

I was surprised, about a year later, to hear from her that she had at last found her "place" in the world, that the brightness and cheer she brought with her had found its way into the hearts of her neighbors, and they, in turn, were teaching her what it means to truly live.

You have a definite "place" in the world. Find out what it is and then do the best you can. Neither angel nor man can do more.

## Unanswered Prayers

**W**HY are so many prayers unanswered? This is a question which is frequently asked, and it is not one to be lightly passed by. Many very worthy Christians are troubled about it. They find it an apparently unsolvable problem.

There are three essentials in the "prayer that prevaleth." First, the believing heart; then, the earnest, concentrated desire, finding expression not simply in the utterance from the lips outward, but in the cry that goes up from the soul itself; and, lastly, the righteous prayer, which is worthy to be presented before the throne. If we pray in simple faith in His name, and not for those things which the senses crave and which minister to our worldly natures, or cater to vanity or display, or to power, pride or social position, but for all that we need to make us better men and women, our petitions will surely not go unanswered.

Christ has taught us to first "seek the kingdom," receiving which all things will be added unto us. We are not, therefore, under the necessity of praying for mere material things, since the lesser is included in the greater. But in our hour of extremity, when earthly sources fail us, we have a right to come before our Father for all our needs.—Christian Herald.



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I want to enroll every reader of the FARM AND FIRESIDE as a member of our great Souvenir Post Card Exchange. Furthermore, I want to send you a complete set of the prettiest Souvenir Post Cards ever published. These are strictly high-class art cards, and are very rare—20 cards in the set.

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When I enroll you as a member of the great Exchange your name is printed on a special list and sent to hundreds of collectors who are anxious to get cards from your district. We also send you one of these lists showing your name in print.

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I have an extra surprise for all who answer this advertisement within ten days after getting this paper. Be sure to ask for the surprise.

Garrett Wall, Dept. 17  
Up-to-Date Farming, Indianapolis

## SPUR FARM LANDS—THE FARMER'S OPPORTUNITY

As owners of over 430,000 acres of high-class Texas farm lands, we are now sub-dividing into quarter sections, and offering them direct to the homeseeker, not loaded down with selling commissions. First offerings are in Dickens County. Land produces wonderfully, easily cultivated. Reliable cotton territory, this crop having never failed. Absolutely free from boll-weevil; it cannot propagate here. Corn, small grains and feed stuffs produce abundantly, alfalfa in portions. Ideal for hog raising—cholera unknown. Excellent fruit-growing region. The Stamford & Northwestern Railway is scheduled to operate to these lands in time to handle the 1909 crop. Present purchasers secure lands at lower price than after railroad is in operation. Easy terms. Fine, healthful climate, altitude about 2000 feet, lying below the plains. For further information address Chas. A. Jones, Manager for S. M. Swenson & Sons, Espuela, Dickens County, Texas.

## WANTED

If you desire to sell property which you own in the U. S. or Can. **FARM** town property ada, such as a **FARM** or a business, write at once for our new successful plan of selling direct, without commissions. If you want to buy desirable property, write for our magazine which contains choice opportunities all over the country, for sale direct by the owner with no commission added. **BUY** **BUYERS CO-OPERATIVE CO.** **SELL** 658 20th Ave. N., Minneapolis, Minn.

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The Largest Mail Order Seed Trade in the World THE BURPEE-STANDARD IN SEEDS is the highest it is possible to attain to-day. Progressive planters know that "the Best is the cheapest." These two sentences convey the principal reasons why the Burpee Business grows year by year.

In Our 33 Years

of successful business we have introduced more Novelties in Vegetables and Flowers that have become Standard Varieties of Recognized Value in the markets of the world than any other three Firms of American Seedsmen!

For 1909

we have decided to give planters generally (even those not accustomed to buy High-Priced Novelties)—an opportunity to learn of the great advancement recently made in several new Vegetables and Flowers—at less than half our regular Catalog Prices for 1909!



## Burpee's Six New "Spencer" Sweet Peas

In Six Separate Packets

All for 25 Cents!

Never before has it been possible to offer such a grand collection of superb Spencer Sweet Peas at a moderate price.

For 25 Cts. we will mail one 15 cent packet of

BURPEE'S APPLE BLOSSOM SPENCER as shown, painted from nature, on front cover of *Burpee's Farm Annual for 1909*; one liberal packet each of BURPEE'S WHITE SPENCER and PRIMROSE SPENCER which sold last year at one cent a seed; one regular packet each of the crimson-orange HELEN LEWIS, and the exquisitely dainty pink-edged FLORENCE MORSE SPENCER; together with a 15 cent packet of the NEW SUPERB SPENCER SEEDLINGS—the first really fine mixture of this magnificent, gigantic, ruffled, Orchid-flowered race.

These Six Superb Spencers, together with our new Leaflet on culture, mailed for only 25 cts., five collections for \$1.00, and mailed to separate addresses if so ordered.

Even at our reduced prices for 1909, if purchased separately, these six packets of NEW "SPENCERS" would cost 75 cts.!

## Eight Elegant New "Standard" Sweet Peas

For 25 Cts. we will mail one regular retail packet each of the following Eight varieties:

The new flaked PRINCE OLAF and the richest dark navy blue BURPEE'S BRILLIANT BLUE, the "apricot and lemon," SYBIL ECKFORD; the "peach blossom pink," QUEEN OF SPAIN; the Gloxinia-flowered, mottled HELEN PIERCE; the fadeless scarlet, QUEEN ALEXANDRA; the orange-salmon, BOLTON'S PINK, and a large 10-cent packet of the unequalled *Special New* BURPEE'S BEST MIXED SWEET PEAS.

25 Cts. buys either of the above collections, or \$1.00 any five collections, mailed to separate addresses, if so ordered.

For 50 Cts. we will mail both collections as above, together with your choice of a 15-cent packet of either BURPEE'S KING EDWARD SPENCER, the greatest novelty in Sweet Peas for 1909, shown on colored plate in our catalog, the NEW PRINCESS VICTORIA SPENCER, so named by royal request, or the gorgeous English St. GEORGE. Thus you obtain for 50 cts. fifteen of the finest new Sweet Peas, which purchased separately at regular prices would amount to \$1.65!

We have been recognized for many years as AMERICAN "HEADQUARTERS FOR SWEET PEAS" and are determined to maintain this unique position. Whether you are ready now to order any of the above or not, you should certainly write TO-DAY for the

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## Any "Four of the Finest" Novelties for 1909—Your Choice—Mailed for only 25 Cents!

Separately the nine varieties described below are sold (excepting *Fordhook Melon*) each at 15 cts. per packet—but you can select any four varieties for 25 cts. (a silver "quarter" or five five-cent stamps), while, if desired, we will mail all Nine Varieties for 50 cts. in cash or postage stamps. Separately these nine packets, at prices per packet, amount to \$1.30.

### Burpee's NEW "DWARF-GIANT" TOMATO

"Dwarf-Giant" is the most meaty of all Tomatoes!

The flesh is so firm and the tomatoes so heavy that they might be described "solid as a rock!" It is the most nearly seedless of all tomatoes. Of handsome, dwarf, erect growth, the bushes produce enormous crops of the most beautiful tomatoes which are truly gigantic in size and absolutely unequalled in delicious flavor. For full description and Colored Plate showing natural size fruits, also particulars of \$437.50 in Cash Prizes—see *Burpee's New Farm Annual*. Per pkt. (70 to 80 seeds) 15 cts.; 2 pkts. 25 cts.

### Fordhook Bush Lima

This is altogether unique! The only stiffly erect Bush form of the popular "Potato" Lima. Both pods and beans are twice the size of the *Kumerle* or *Dreer's Bush Lima*, while not only is the growth and foliage distinct, but the "fat" beans are of the same delicious flavor as *Burpee's Bush Lima*. For illustrations, prize reports, and description—see *Burpee's Farm Annual*. Per pkt. 15 cts.; ½ pint 25 cts.; pint 45 cts.

### Earliest Catawba Sweet Corn

At last we have found a rival to our famous *Golden Bantam*—both in extreme earliness and surpassingly delicious flavor. Several who have tested it at FORDHOOK FARMS and in its home on Seneca Lake, N. Y., say it is even better than *Bantam*! For full description and special offer of \$310. in Cash Prizes—see page 17 of *Burpee's Farm Annual*. Per pkt. 15 cts.; 2 pkts. for 25 cts.

### Burpee's Earliest "Wayahead" Lettuce

So named because it is the earliest and surest heading of all "Butterhead" Lettuces. For illustration from photograph—see *Burpee's Farm Annual for 1909*. Per pkt. 15 cts.; per oz. 50 cts.

### Fordhook Musk Melon

Heavily netted melons, nicely ribbed, with thick golden-red flesh of exquisite flavor. A better shipper than our original *Netted Gem*—The "Rocky Ford" Melon—and as sweet as our famous *Emerald Gem*! For painting from nature, full description and trial reports—see *Burpee's Farm Annual*. Per pkt. 10 cts.; oz. 30 cts.; ¼ lb. 85 cts.; per lb. \$3.00.

### Burpee-Improved Bush Lima

The earliest, largest and best of all Large Limas. Ten days earlier than any other Large Lima, the pods are truly enormous in size and borne most abundantly on vigorous upright bushes.—see *Burpee's Farm Annual*. Per pkt. 15 cts.; ½ pint 35 cts.; pint 60 cts.

### New Sweet Peas for 1909—Superb "Spencer" Seedlings

Many colors of the gigantic waved and frilled "Spencers"—in unequalled mixture. These new seedlings of the true "orchid-flowered," crinkled type will give a rare treat to lovers of Sweet Peas. For description—see page 117 of *Burpee's Farm Annual for 1909*. Per pkt. 15 cts.

### Burpee's Blend of New Giant-Flowered Pansies

This is decidedly the most complete mixture of Truly Giant-Flowered Pansies ever offered. For illustrations and descriptions—see page 140 of *Burpee's Farm Annual for 1909*. Per pkt. 15 cts.

### "Variegated-Queen" Nasturtiums

In Superb Mixture for 1909. Of tall growth, bearing flowers of many bright colors. The leaves are so beautifully variegated with yellow, white and green that the plants would be worthy of culture even for foliage alone! Per pkt. 15 cts.; per oz. 50 cts.

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A Side View, from a Photograph, of the New Ruffled Giant Mixture Sweet Pea.



THE SEAL OF QUALITY!







Vol. XXXII. No. 9

Springfield, Ohio, February 10, 1909

Terms { 1 Year, 24 Numbers, 35 Cents  
4 Years, 96 Numbers, \$1.00

## Irrigation in the United States

It is hard for the farmer who has stayed at home and lived upon the lands which his father and his grandfather cultivated in the middle section of the United States to realize what a scarcity of arable land there is in our great country. Yet that scarcity exists, and as years pass, virgin soil is becoming ever more and more rare, until the time approaches when this land will all be gone.

It has been aptly said that while lands have many crops, there is but one crop of land itself, and when that crop has once been garnered, the homeseeker has no place to turn.

Our school books left us the impression, when we were children years ago, that the great areas of our Western states were vast expanses of rolling prairies whose stretches were boundless as the seas; but when in later life we become familiar with that great "Inland Empire" we find things very different.

From the mountains of eastern Colorado westward the country is a succession of barren plains whose swirling sands and alkali laden soils are foes to all plant life save the hardy sage, greasewood, mesquit, cactus and such forms of desert flora. These endless sand planes are cut by mighty ribs of rugged, rocky crags, whose snow-capped domes give birth to tiny, clear, cold streams which plunge downward in a series of rapids and waterfalls to lose themselves in the thirsty, arid soils.

Rainfalls are rare; hence to bring fruition to the land the practise of irrigation is necessary, and as the water supply is scarce, irrigation can only be practised in relatively few areas.

That one may appreciate the comparative scarceness of productive lands, it is of interest to note that, according to the statement of our Federal Land Office, there were on July 1, 1908, 754,895,296 acres still classed as public lands—lands that might be preempted by any of our citizens. That this land was largely undesirable is apparent when we have knowledge that during the past few years a third of a million American families, comprising some of the best blood of our nation, have expatriated themselves and taken new homes under a foreign flag because they could not find within our borders lands which they might make of equal value to them. The vaster number have gone to Canada, braving the bleak, cold climate of a region where even in its southern districts forty and even fifty degrees below zero is not rare in the winter time, because there they found rich loam, and during the short, warm

summer crops could be grown. Hordes have likewise gone into Mexico, and in that sunny sister republic have found welcome from the friendly people, and there they have established their homesteads.

The modern scientific farmer realizes that if he can control the supply of water, and can place it on his lands just when the grains and plants require it he has eliminated all element of chance as to what his returns will be. Hence it is that the irrigation of fertile soils in a section of the country where rainfalls are rare enables the agrarian to eliminate all speculation and plant with a certain knowledge of his ultimate returns.

This demand for perfect scientific conditions coupled with the scarcity of naturally productive public land has led the country as a whole to turn to irrigation as a matter of vital interest.

to the construction of irrigating works for the reclamation of arid lands. The states affected are Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Utah, Washington and Wyoming.

The theory of the act was that the government should make a careful investigation of all the pertinent conditions within these states and would then select certain areas and indulge their reclamation. The cost of this work is covered by the moneys derived in the manner provided, and after the water system is completed the cost is borne by the land holders, whose farms are so irrigated, through the prorating of this original cost.

The water user pays for this reclamation work ultimately, and these payments are made in either five or ten annual in-

finement to the Indian reservations, but certain of the lands may be acquired by whites upon payment of a fixed sum to the Indian tribal fund.

The Reclamation Service is devoted to the irrigation of lands which are now taken or are to be taken by those eligible under our laws to take such lands.

To gain an idea of the enormous work being done by the Reclamation Service of the United States it is merely necessary to note that for 1907 the expenditures approximated one million dollars a month, and a total of 16,363 people were employed in this reclamation work. As a result, over sixteen thousand people have taken up their residence in the reclaimed regions which heretofore were deserts.

There are many interesting things to be noted in connection with these different projects.

The Garden City Project is one in which the lands irrigated were in a settled section. The work here is accomplished not by the diversion of surface waters, but by pumping artesian water from far beneath the ground. It was installed largely for educational purposes to make clear the manifold advantages of irrigation, and as a result of the work, lands that had formally been held at from five to fifteen dollars an acre are now easily worth from one hundred to one hundred and fifty dollars an acre.

In North Dakota the irrigation problem was unique. There were no artesian bodies of water to be tapped and the rivers flow through a loose soil, hence it was not feasible to station the pumps (which were found to be necessary) upon the river's sides, as the Missouri River at the point selected is treacherous and has a habit of undermining its banks. The engineers solved the difficulty by stationing the great pumps on floating foundations anchored in the river, and thus the water is pumped to high-line settling reservoirs, from whence it is conveyed by gravity flow through a canal system to the lands which are irrigated.

The power required for these pumps is electricity, generated at a central power plant through the use of lignite coal obtained by the government from mines which it owns and operates for that purpose. These mines are close to the central power plants, for that section of the state is underlaid with great, thick veins of this coal.

The Shoshone Project of Wyoming has as its most interesting feature the great dam which was constructed in a cañon to impound the flood waters and hold them in a reservoir until they might be



View of Irrigating Canal, Imperial Valley, California

It has been estimated that in the thirty years prior to 1902 there was a total of ten million acres of land placed under irrigation within the semi-arid land states, and it was found that while this reclamation cost one hundred and twenty million dollars, yet the lands which otherwise would have been barren, each year produced crops aggregating over two hundred and fifty million dollars, or more than twice the original cost.

It was then that the government first took formal notice of this irrigation work, which had heretofore been indulged by individuals or quasipublic syndical associations.

On June 17, 1902, President Roosevelt signed the Reclamation Act which had been passed by Congress. This bill was entitled: "An Act appropriating the receipts from the sale and disposal of public lands in certain states and terri-

stalments in such a way that the irrigation cost, which averages \$36.65 an acre, is absorbed so gradually as to not prove a great drain upon the farmer's income, and as a matter of fact may be readily cared for from the greater income from his lands.

When the final payment has been made the water system which the government has installed becomes the property of the water users' association formed by the irrigators themselves, and thereafter the system is operated as a co-operative institution, where the water users derive the benefits and directly bear the cost of operation, maintenance, etc.

The Department of Interior is at the present time installing a number of irrigation projects, such work being done by the Reclamation Service and the Indian Service.

In the latter work the irrigation is con-

See Our New Limited Offers on Pages 22 and 26



needed. This dam will be three hundred and ten feet in height, and as it is in a narrow gulch, while it is only one hundred and seventy-five feet long at the top, it is one hundred and eight feet thick at the bottom. If the Flatiron Building of New York were placed beside it, the dam would tower several feet higher than that great structure. The construction of this dam is difficult as well as dangerous, for here the workmen are lowered into the cañon from the top some hundreds of feet above, and with ropes about their bodies as they work, drill holes and blast the rocky walls.

In Nevada the entire Truckee River is lifted bodily from its bed and its waters are turned into a great canal, which conveys the waters to the ancient dry lake bed whose rich sediment is converted into an oasis in the great desert and mountainous sections which stretch for miles about it.

At Yuma, to which the attention of our nation was directed a few years ago, it was necessary to force a mighty river back into the bed it had left—and this was accomplished only through superhuman efforts on the part of our federal experts with the able and necessary assistance of virtually the entire equipment of the great Southern Pacific Railroad system.

#### Value of Reclaimed Land

It was of these lands which are considered the most valuable in our country that President Roosevelt in his message to Congress said: "The most conservative estimate after full development must place the gross production from this land at not less than one hundred dollars an acre per year, every ten acres of which will support a family when under intensive cultivation. Much of this land will be worth from five hundred to fifteen hundred dollars an acre to individual holders."

In the Salt River Valley of Arizona the revolution of time's cycles are apparent. Here we are installing a great project and are irrigating the lands in the same way as they were irrigated by a vanished race, a people who lived there a thousand years ago.

Their cities and temples were larger and their population was far greater than is ours in that same region to-day, and it would be presumptuous for us to claim a more advanced knowledge of irrigation than they displayed.

Here we of to-day find great ruins, the vast, mute evidences of an advanced civilization, with miles upon miles of canals showing a thrifty and home-loving husbandry embracing whole valleys. These are all that remain to mark that here a great nation once lived. And here we in what we call advanced, "modern" farming are but following in the footsteps of a people of whom we know nothing save that which their massive ruins tell.

The cause of their extinction will never be known. Yet here we know that a mighty

race once lived. Here, probably when Rome was in its prime, these people lived their simple, bucolic lives, tilled the soil and had their loves, ambitions, strifes and successes even as we of to-day are doing.

There is a strain of sadness in the thought of this strange people who came and lived a while and went, that makes us ponder some and think that perhaps in a thousand years or more some new race may wonder at the ruins of the works that are so real and self-sufficient to us.

This Reclamation Service has now under way the irrigation of twenty-eight large projects, and their names, with the conditions surrounding each, are given in the accompanying table.

The irrigation projects of the United States are by no means confined to those being indulged by the Reclamation Service and the work of the Indian Bureau.

There are in nearly every one of our arid-land states a number of projects, most of which exist by virtue of the Carey Act, some of which have already completed the irrigation of certain fertile valleys ranging in size from a few hundred to many thousands of acres.

Among these might be cited the great Imperial Valley Project of California, where two hundred thousand acres of what was once a part of the Colorado Desert has been reclaimed; and the areas about Twin Falls, Idaho, where much larger areas have been placed under irrigation.

In the Sacramento Valley of California the government is co-operating with the state and with communities in endeavoring, by both irrigation and drainage, through the control of the river's flood waters by impounding them in reservoirs, to effect the intensive cultivation of all of the three million acres contained in this great valley.

#### Great Obstacles Are Overcome

To the Eastern farmer, who is merely planting as his father planted and trusting that rains will come just when his grains need rains, it is hard to conceive the lengths to which the irrigators are going in their work of taking waters to barren alluvial lands, that they may have fecundity.

Long tunnels are driven through chains of mountains, rivers are turned from their channels and their waters are impounded in reservoirs and are husbanded until they are needed to moisten the thirsty vegetation; and in many ways are Nature's provisions combined and harnessed to serve mankind in his work of finding foods for a hungry people.

The farmer of the Middle West levies his constant tribute from the soil, taking from it each year that small percentage of its nitrogenous elements which are necessary to plant life, and so each year his lands wear out—more rapidly if he is prodigal than if he is careful and economical of his soil's strength—yet the fact remains that the time approaches

when, like the older areas nearer the Atlantic seaboard, his lands will not pay their cost of cultivation.

Then he will turn, as hordes of his fellows have already done, and will go into other sections where the soil is new and where the waters used in irrigation come laden with a wealth of silt, high in plant foods—potash, nitrates and phosphoric matter—and learn the lessons of irrigation and the fact that under its practise the waters which bring fecundity to the crops he has planted bring also constant fertilizing matter to enrich the soil, so that future crops will fructify, and this will continue without diminution forever.

We must, however, face conditions. There is a limited amount of water in the streams of the West which is even more restricted than the scant alluvial areas which without irrigation are barren wastes. The government already realizes that a time approaches when these waters will all be under service, and it is already casting about for an answer to satisfy the land-hungry farmer who in the future will ask for lands from which to gain a living for his family.

#### The Bureau of Soils Investigates

Through the scientists of its Bureau of Soils, the Department of Interior is examining the lands of our great West with an idea of finding some way to cause the fertile sections, which are free from alkali or other deleterious salts, to bear without irrigation. The fact that this work is being indulged seriously is the best evidence which can now be presented that an ultimate solution is to be expected, and in that solution lies a matter of great interest to the farmer of the future.

To-day there are many farms to be had, and while there are many farmers who will take them, there are still, and for some years will be, many irrigated sections in our West where one may establish a new home. Perhaps his acreage will perforce be small, yet his returns an acre will be relatively greater, for with irrigation uncertainty is eliminated; and if his lands are in the southern portions, where there is no frost, he can count on more than one crop from the same land each year. If he grows alfalfa, he can raise eight crops; thus his twenty-acre farm yields perhaps as much as one hundred and sixty acres in a climate where but one cutting is possible.

CHARLES R. PRICE.

#### The Advancing Farmer

It has been pointedly remarked that the addition of a new fact to a farmer's mind often increases the amount of harvest more than the addition of acres to his estate.

The aim of the national government and state officials who are issuing agricultural publications is to show how to increase crop yields at the least cost and to keep the farmer fully posted. K.

## The Land Question

I WAS much interested in the article by S. J. Logan in FARM AND FIRESIDE of November 10th, entitled "Farmers Should Own Their Land." I cut it out and have carried it in my vest pocket till to-day. As I took it out and re-read it I came to this rather surprising statement: "But aside from all sentimental considerations, most people have a desire to own land, although not all, by any means, who cherish this desire and ambition, will be able to realize its gratification, because there is not enough land to go around, nor anywhere near it."

Without reckoning our Colonial possessions and excluding also the water areas, there are in the United States, in round numbers, 2,272,000,000 acres; that is twenty-eight and one half acres to each person, or one hundred and forty-two acres to every family, dividing the population into families of five.

In the state of Texas there are 168,044,040 acres; so that if all the people now in the United States were located in Texas, there would be something over two acres to each person, or eleven acres to every family of five.

In Belgium there are 7,278,720 acres, and there are 6,690,000 people, or one and one tenth acres to each person, or five and one half acres to each family of five. If Texas were populated as thickly as Belgium it would support 153,000,000 people, or nearly as many again as there are now in the United States.

If the United States were populated like Belgium it would contain 2,066,000,000 people and give them one and one tenth acres apiece, or five and one half acres to every family of five.

Of course, if the water areas were taken into account, it would greatly enlarge the above results. The same may be said of intensive farming. Often the amount of production depends vastly more on the labor expended than on the area occupied. The amount of territory taken up at the present time in this country in the support of a family is in most cases absurdly large.

Another consideration is that as intelligence and humane sentiments increase there will be less and less mere dead muscular labor required, and the food consumed and clothing used will be less.

Other considerations in the same line might be mentioned, but we may be sure that there is no danger of people so filling up God's earth that there will not be room enough for them. If that day comes it will be when the oceans are dried up and the sun's heat is exhausted. C. HARDON.

#### New Saws

Some farmers think that the man who feeds the world ought to eat at the first table. The farmer is seldom wrong.

The winning plan of farming in the Eastern states is to experiment with new crops and adopt new methods of culture.

One county in Tennessee has decided to spend one hundred thousand dollars in building good roads. Thus the cause of good roads progresses.

In Venezuela grows a cow tree, the sap of which is used for milk. If such a tree would thrive in this country we might expect to find whole orchards of it on dishonest dairies.

In Kansas two thousand farmers are called to the telephone at one time and informed of proposed meetings of interest to them. The rural phone has come to stay, that the farmer might learn all the news by staying at home—if he wants to do so.

Farmers' elevators are growing more popular. In one live community sixty-five shares were disposed of in one day, which was two thirds of the shares necessary to insure success of the plan. Where the farmers' elevator has had a chance, the grain market is from two to five cents higher than elsewhere.

A plan which every community should adopt is that every farmer should place his own name and the name of his farm on his road gate. This seems to be about as important as that the name of every street should be visible in the cities. The man driving through the country easily finds the place he wants. Besides, it adds interest and pleasure to all passing by.

One man who has made the science of telepathy a study thinks he can succeed in transferring his thought in the form of a question as to the kind of food desired to the mind of a horse, and then being able to read the thought of the horse in reply, as to whether it wants corn, oats, hay, or would rather be turned out in the pasture.

The greatest puzzle

Any farmer ever knew  
Is how to run his farm  
Without himself running, too.

W. J. BURTSCHER.

Principal Irrigation Projects of United States Reclamation Service

AREA ACRES	NAME	LOCATION	TOTAL ESTIMATED COST	COST OF LAND PER ACRE	LENGTH OF RESIDENCE REQUIRED (YEARS)	COST OF WATER RIGHT PER ACRE	FARM UNIT LIMIT (ACRES)	MAINTENANCE CHARGE PER ACRE PER YEAR	FAHRENHEIT TEMPERATURE RANGE	ALTITUDE FEET	ANNUAL RAIN-FALL (INCHES)	RAILROADS	NEAREST TOWN	WHEN COMPLETED
210,000	Salt River	Arizona	\$6,300,000	\$60 to \$150	5 to 10	Probably \$30	Not Decided	Probably \$1.60	120 to 20	1100	3 to 10	S. P., A. T. & St. Fe	Phoenix	1910-11
30,000	Orland	California	1,200,000	\$25 to \$100	Constant	\$45	40	75c	121 to 26	250	17	S. P.	Orland	1910
100,000	Yuma	Calif.-Ariz.	4,500,000	\$30 to \$100	5 to 10	Probably \$50	20	Not Decided	118 to 22	90 to 220	2½	S. P.	Yuma	1909
140,000	Uncompahgre	Colorado	5,600,000	\$15 to \$500	5 to 10	Probably \$35	Probably 40	Not Decided	98 to -10	5500	6 to 11	D. & R. G.	Montrose	Partly in 1909
50,000	Grn'd Valley	Colorado	2,250,000	Some Pub. Land \$40 to \$300	5	Probably \$40	Probably 20 to 80	Probably 50c	.....	4600	11	Col. Mid. D. & R. G.	Grand Junction	1911
130,000	Minidoka	Idaho	3,260,000	No Pub. Land Various Prices	5 to 10	Some at \$22	40 to 160	Not Decided	104 to -20	4200	15	O. S. L.	Rupert	1909
300,000	Payette-Boise	Idaho	9,000,000	\$50 and Up	5	Probably \$30	Average 40	40c for Gravity System	100 to Zero	2600	6 to 13	O. S. L.	Boise	Several Years
10,000	Garden City	Kansas	350,000	\$75 and Up	Constant	\$35	160	\$2.75	110 to -20	2925	20	A. T. & St. Fe	Garden City	1908
32,000	Huntley	Montana	900,000	Some Pub. Land	5 to 10	\$30	Average 40	60c	100 to -35	3000	12	N. P. C. B. & Q.	Billings	1908
200,000	Milk River (& St. Mary)	Montana	5,000,000	50% Pub. Land \$25 to \$40	5	Probably \$25	160	Not Decided	105 to -45	2300	13½	G. N.	Malta	Several Years
276,000	Sun River	Montana	8,000,000	Some Pub. and Some State Land	5	\$30	40 to 176	50c	95.8 to -19.3	3700	12	G. N.	Great Falls	16,000 Acres Now
110,000	North Platte	Neb.-Wyo.	3,850,000	\$10 to \$50	5	\$35	80 Acres Irrigable	40c	100 to Below Zero	4000	9 to 18	B. & M. R.	Gurney	Part Now
160,000	Truckee-Carson	Nevada	4,800,000	Some Pub. Land	5 to 10	\$30	40 to 160	Actual Cost Prob'ly 40c	105 to Zero	4000	2 to 4	S. P., C. P.	Fallon	Almost Finished A Few Months
20,000	Carlsbad	New Mexico	640,000	\$30 to \$85 and Up	5 to 10	\$31	160	About 75c	112 to -5	3100	13	Pecos Valley A. T. & St. Fe	Carlsbad	Now
10,000	Hondo	New Mexico	370,000	\$25 to \$400	10	\$30	160	Not Decided	102 to -25	3570	14	A. T. & St. Fe	Roswell	Now
20,000	Leasburg	New Mexico	200,000	\$75 and Up	5 to 10	Probably \$40	160	Estimated at 40c	110 to Zero	3800	11	A. T. & St. Fe	El Paso	Completed
180,000	Rio Grande	N. Mex., Tex. and Mex.	8,000,000	No Pub. Land \$10 to \$125	5 to 10 in U.S. Sections	\$10—No Charge in Mexico	160	Estimated at 40c	106 to 1	3900	15	A. T. & St. Fe	El Paso	Several Years
40,000	Buff'd-Tr'n'd and Williston	N. Dakota	1,240,000	\$10 to \$35	5	\$35	40 to 160	70c Plus 50c per Acre	100 to -40	1900	15	G. N.	Williston	Several Years
66,000	Lower Yellowstone	N. Dakota	2,700,000	Some Pub. Land \$10 to \$25	5	Probably \$45	Probably 80	Not Decided	110 to -50	2000	12 to 16	N. P., G. N.	Glendive	1909
20,000	Umatilla	Oregon	1,250,000	\$50 to \$200	5 to 10	\$60	10.20 to 40	\$1.00	110 to -6	500	9	O. R. R. & N.	Hermiston	Part Now
190,000	Klamath	Oreg.-Calif.	4,400,000	\$15 to \$50	5 or More	\$25 to \$30	Probably 160	About 50c	100 to -5	4100	14	S. P., C. N. E.	Merrill	¾ Done
100,300	Belle Fourche	S. Dakota	3,000,000	Some Pub. Land \$10 to \$20	5 on Homestead	\$30 for Main System	40 to 80 Acres Irrigable	Actual Cost Prob'ly 40c	100 to Below Zero	3000	14 to 16	C. & N. W., C. B. & Q., C. M. & St. P.	Belle Fourche	12,000 Acres Now
30,000	Strawberry Valley	Utah	1,500,000	\$50 to \$200	5 to 10	Probably \$50	160	Not Decided	99 to -18	4500	18	D. & R. G., S. P. L. A. & P.	Salem	Several Years
8,000	Planogan	Washington	500,000	\$50 to \$200	Constant	Probably \$50	40	Not Decided	100 to Below Zero	1000	Light	None	O'Knogan	Almost Done
90,000	Sonnyside	Washington	1,600,000	\$30 to \$1,000	Constant	Probably \$50	80	Not Decided	104 to Below Zero	800	6	N. P.	Sunnyside	1911
24,000	Tieton	Washington	1,500,000	\$50 to \$2,000	5 to 10	\$65 to \$70	40	Not Decided	100 to Below Zero	1500	6	N. P.	North Yakima	Several Years
20,000	Wapato	Washington	600,000	This is not open for settlement.	Climate, etc., like Tieton							N. P.		Several Years
150,000	Shoshone	Wyoming	6,750,000	Homestead	5	\$45	40 to 160	\$1.00	96 to -20	4000	6 to 10	C. B. & Q.	Cody	1910



# Around the Farm

## Items of Interest and Value to the Progressive Farmer

### Some Practical Advice

**A** RAILROAD man writes from Boston, Ohio, that he has a hundred and ten acres of land, fifty of which is good plow land, the balance pasture land—that is, mostly too rough to cultivate. He has been railroading for twenty-six years, and is now earning fifty-five dollars a month. There is a debt on the land of two thousand dollars, and he naturally wants to get it off. What he wants to know is: Shall he hold onto his job and rent the land, or shall he go on it and farm it himself?

If that is not a nut for a stranger to crack, I never saw one. From the way he writes, I judge the man to be a steady, hard worker, or he would not have held his job for so long time. But when it comes to farming, the question that is vital is: Is he a practical farmer? Evidently he is not. Then would it be safe for him to give up his job and tackle that farm and the debt of two thousand dollars? Before he does it he must have some practical experience, and to get that he should hire for a year to a good farmer not far from where the farm is located. He will then know about what he has to do. I rather think that if he makes up his mind that he will work this problem out, he will do it. He must not be afraid to ask questions and to learn all he can about cultivation, planting, varieties of crops, feeding and managing stock, profits to be obtained, in fact everything connected with practical farming. He should not only keep track of how his employer farms, but also how the neighboring farmers manage their business. If he will keep his eyes open and his wits about him he will learn enough in one year to give him a safe start. And after he gets fairly started he will make a go of it.

### Business Principles and Farming

I know two men who knew no more about practical farming than this man does, who hired to farmers for a year, then went on farms they owned, and in five years were admitted to be the most thorough and successful farmers in their locality. One of them had been a groceryman fifteen years, and the other a brick mason. They had invested their savings in small farms, and as soon as they felt safe, had given up their trades and tackled the farming problem. To see them now one would never suspect for a moment that either ever had been anything but a farmer. The groceryman knows to a penny what his receipts and expenses are, and how much a crop or a bunch of pigs nets him. He keeps his books as carefully as when in the store. The brick mason keeps fairly good accounts and knows what he is doing. He has good brick walks about the place, brick and concrete floors in his stables and feed pens, and one can easily note that he believes in bricks and concrete, for he is planning to have all his buildings made of these materials.

Another Ohio man who says he has been in the lumber business all his life has a farm of a hundred and forty-nine acres, part rich valley and part clay upland, and he is about to move onto it and try his hand at farming. As the farm is very finely situated, and he is not in debt, he will, without a doubt, make a success of it. By taking special note of what his neighbors grow in the way of crops, and what kind of stock has proved most profitable with them, and getting the advice of the best farmers in the locality, he will be able to advance without difficulty. Let me say just here that he will find quite a diversity of opinion among even old, experienced farmers concerning the management of the land and stock, but the proof of the pudding is in the eating. Have them produce facts with the figures, and one can soon decide the best course

to pursue, and the right sort of stock to keep. Many old farmers are in a rut, and are determined to stay there, and their advice is not worth much, but the live, right-down-to-date farmer who can give a good and practical reason for his methods, and the figures to support what he says, is the man to watch and pattern after. There are a whole lot of very positive guessers among farmers, and their opinions are scarcely worth listening to. If a farmer is making money his ideas are the ones to take under consideration.

I would suggest to these querists that they get in touch with the experiment stations of their state, and with the Department of Agriculture at Washington, and get the bulletins that are sent out, and read them carefully. Some of them, of course, will not be applicable to the locality in which one lives, and in making application for them one should state that he desires only such as will benefit him. For instance, a bulletin on growing oranges would be of no value to a farmer in Ohio, but one on the best method of selecting seed corn would, because it contains the practise of successful corn growers, and tells one what he would be a long time in finding out by experimenting on his own hook.

### The Young Man and the Office

A young man who says he is eighteen years old and making his way in the world alone writes from Pennsylvania and asks several questions. He is taking a course in bookkeeping, probably a so-called correspondence course, and thinks that when he is "graduated" he would like to get a position in some office where the work is not so hard and rough as on the farm.

Some of the "correspondence courses" are well enough, but the principal objection to that method of teaching is the promises held out to "graduates"—promises of soft jobs and fat places in fine offices waiting for just the persons—these "graduates"—are. When the "schools" get the person's money and have given him

world's workers. If he saves his money and avoids all wasteful and foolish habits he will soon be owning a home of his own and pushing well to the front.

### Learning a Trade

A totally different sort of letter comes from a young man twenty-three years old, who emphatically declares that he has wasted about two years of his life in a great city, and now returns to the country much wiser and madder. He spent a year learning what is considered a good trade with lots of money in it. He went to a certain big city and soon secured work at his trade. His employer was a rather independent, forceful man who believes in giving every man a chance to make what he can—letting the first-class steady worker go to the front and get the fattest jobs and the third-rate man look out for himself. If he gets drunk and is unfit for work, send him back to get himself into the form of a man again and fit to do as good work as the best, or give him third-class work with third-class pay. But he was handicapped. He could not do this under union rules, so the third-class man got the same pay as the steady young man, and the latter was allowed to do no more work than the other, though he was ambitious and anxious to get ahead. He writes:

"The work I did I could have done easily in half the time, and I would have been glad to work a couple of hours longer, but it was not allowed. So I had to fool around about four hours wishing I had something to do to add to my income. Got tired of the whole thing, and quit. I have come back to the land where unions do not trouble and the walking delegate is at rest. I would not advise any young man who wants to be independent and get ahead as fast as possible to go to a city and learn a trade, because he will have to join a union, and the boss will tell him how much he must do, and when he must quit, and in fact just run him. If a young man does not care, but likes to be bossed and told how

anxious to leave the farm—who is counting the days to the time when he will be his own master and can go to the city to "get rich"—may read with profit the above words from one who went there and learned a good deal in a short time. I am well satisfied that the present is a good time to stick pretty close to the farm. If one is crowded off the home farm it is a good idea to stick to the country and hire to a farmer. One who understands farming should have little difficulty in finding a place not very far from home, and wages for skilled farm hands are very good.

If a young man has studied as he worked and knows what should be done and how to do it, he can have his choice of many good places in almost any farming section, and a farmer will give him the highest wages he can afford to hold him. I know a young man who has worked for the same farmer six years. The farmer is well along in years and does little more than chore about the place, while the young man is really the manager as well as hired man. A dozen farmers are ready to bid for his services whenever he leaves his present employer. The old man treats him like a son, and I understand he will work the farm this year for half the crop, the old gentleman furnishing the working outfit. The owner says the young man will turn over to him almost as much an acre as he could grow on it himself if he kept entire control.

Farming is becoming more and more of a science, and the young man who masters it is sure of work at good wages, and sure to become owner of a farm.

FRED GRUNDY.

### Short Stops

Each kind of soil on your farm has certain needs and certain possibilities. Supply the needs, plant selected seed, and the crop must prove profitable.

Reports from every section of the country indicate that times are improving and confidence in immediate business prosperity is increasing.

To be wide awake and a little ahead of the times seems to be a chronic symptom on our Pacific coast. What the people in that section fail to invent or improve or utilize is certain to be a matter of the extreme unimportance.

It borders on the marvelous to realize that within two hours after green pea vines are mowed and delivered at the cannery the peas are separated from the pods, graded, labeled and boxed for market without having been touched by human hands.

In 1895, Sir John Lawes, of Rothamsted wrote: "A day will come when we shall cultivate our plants by adding to the soil the necessary micro-organisms that may be lacking." But a few months there-

after a patent was taken out for a substance known as "nitragine" to furnish bacteria to leguminous plants.

Certain enthusiastic friends of the farmer expect to raise the standard of farm life. It is to be hoped that these great expectations will be realized. The farmer should get the largest possible return in money, comfort, social and intellectual advantages that can be obtained in any occupation. Better roads and consolidated, graded district schools may help solve the problem.

The Agricultural Federation of Germany numbers two hundred and thirty-two thousand members. The object of this society is to supply its constituents with seed, manure, machinery, etc., at prices considerably below those demanded by commerce. The membership is increasing. During the past year nine thousand meetings and lectures were held by the society in different parts of the empire. It has three hundred and fifty-three affiliated branches. W. M. K.



Minidoka Project, Idaho. Front View of Minidoka Dam in Diversion Channel

the "course" he can look out for himself. Then he will find that the fat places are all filled.

This young man has about the same sort of dreams that most young men have, dreams from which some awaken early and some later in life. Those who awaken early are such as have a good, practical friend to advise and aid them, one whose advice they will listen to. It is plain that this young man is a good worker and has in him the making of a good man. Just now he has become a little restless and would like a change of some sort. I would suggest that he seek a new location, if he can do so without fear of homesickness. I would suggest that he remain where he is a few months, then pack up his belongings and go to northern Kansas or southern Nebraska and find a good farmer to work for, and hire for about eight months or a year. This will tend to develop him and make a full man of him. Then he will begin to see his way clearer, and will soon get into his place among the

much he must do, and likes to work with men who do a slobber job, and dilly-dally about to make it last as long as possible, and likes to sit about and listen to nonsense five or six hours a day and just let the days come and go like the pendulum of a clock, he should get into some trade in the city. I have too much independence in my make-up to be chained down to a union and ordered to do just thus and so or get sluggish. I always had a hankering for the farm, but thought I could make money faster and get one sooner by following a good trade. That is why I went to the city. If I had been allowed to work as I pleased I would have had a farm in about five or six years, because I could have made the price in about that time. As it was, I could not have done it in fifteen years. I have nothing against the unions except that they destroy independent action, and put the poor worker on an equality with the best, and there is no incentive to improvement."

Many a young farmer boy who is



## Around the Farm

### The Boy and the Farm

ONE of the Eastern granges is again giving particular attention to the problem how to keep the boys on the farm. It seems to me that there is another, still more pressing problem relating to the farm youth, and this is how to keep the farm boy in school.

The great need of the times in modern agriculture is not to secure more muscle, but more brains and more knowledge. Any father who imagines that he can make his boy love the farm and farm work by bringing him up to believe that farm work consists mostly of doing chores, and swinging the hoe, or walking behind the plow, is woefully mistaken. Any work which calls for the exercise of muscle only, and not of brains, is dull and uninteresting to a lively youngster. The farm youth is more than a mere machine, and does not like to be used as such. But even the lowliest work on the farm, and may this be ditching with shovel and spade, can be made interesting if thought and study is directed upon it. Teach the boy to keep his mind busy while using his hands in the performance of mechanical tasks. That really is the secret.

The starting point of such farm training, of course, is in the school. There is where the foundation must be laid. The boy who is taken out of school at fourteen years of age, having absolved his regular course in "the three R's" and a few other common studies, but never having his interest aroused for higher studies, and especially for nothing connected with the nature and activities of farm life, or human existence in general, is not in fit condition to meet and solve the various problems which will confront him on the farm. He may be able "to farm it" as his fathers have done it before him, but he will not likely take much interest in his work, or acquire an undying love for farming as an occupation.

In short, the demands which the details of modern soil operations, especially in the higher lines and branches, make on its devotees for knowledge and the exercise of judgment and brains, are such that the person who has not much more education or experience than the boy who leaves school at fourteen is not able to meet them. Naturally and necessarily, the youngster who faces such demands and conditions must feel his helplessness and become easily discouraged and ready to quit a (to him) so unpromising field of activity.

You cannot take a boy out of school at fourteen and expect him to make a competent farmer, with all his heart and his mind and thoughts in farm work. A few years of the right kind of training added to his regular ante-fourteen schooling—training which will put in his possession the elementary facts and theories of the conditions of things natural, and of the natural phenomena around him—will put him in the position to go at his life work understandingly, so that he can apply his knowledge to practical use in his daily work, and keep his brain active while his hands are busy. If he sees a chance to make himself master of the situation, rather than be a drudge and a slave, he will see enough in farm life and farm work to attract and keep him tied to the farm by garlands of roses rather than by the chains of necessity or compulsion.

To keep the boy in school may be the key to the solution of the problem how to keep the boy on the farm.

T. GREINER.

### Our Friends the Birds

NOT so very long ago I wrote an article standing up for the birds, speaking especially in behalf of the robin, in spite of his disposition to help himself to our cherries, and some other fruits. A man down East pitched into me "like sixty," telling me that I was a sentimentalist and did not know what I was talking about. The birds, he said, did a wonderful sight of injury to many kinds of crops, especially fruit.

Just now a report of the national Department of Agriculture comes to my notice, stating that we as farmers in this country suffer a money loss of not less than fifty million dollars a year from insects. The biological survey of the same department believes that the birds of different kinds are the greatest aid to the farmers in their fight against the pest of bugs and worms.

Naturally I feel pretty good about this. It does a fellow good to know that so big a man as Uncle Sam stands at his back. All the little chaps may chirp to their hearts' content if our Great Father

sounds the trumpet note in favor of our friends the birds.

Every spring a bluebird comes early to make its nest in a hollow place in an apple tree in our yard. I don't know whether it is the same one every time or not, but I like to think it is. There is something fine about it to me that this bird should feel so sure that he is in a friendly country that he should want to come back year after year to live in the old apple tree. It stirs my heart to see him peer over into the hollow place to see if everything is just as he left it last fall when the time came for him to go South. His satisfied look as he comes out and goes at it to clean house and bring in new material for the furnishing of his house for the coming season does me great good. Why, I would fight for that bird.

So with all the rest. When the men cut one of the telephone poles that stand near our farm home they left a big sliver at the upper end. This has warped in the sun, so that the top is sprung out an inch or two from the main part of the pole. Somehow a woodpecker one day discovered that when he drummed on that sliver it made a musical sound. It tickled him wonderfully. The ringing of the wire seemed to be just what he liked, and he drummed and drummed for a long time. He went off and tried it on other poles, but none of them responded as did the sliver. Here he comes and, plays his harp every summer, and I like to hear him.

What difference does it make that these birds eat now and then a bit of fruit? I like it myself. If I could not get it any other way I don't know but I should be tempted to steal it. But if I paid back for what I took as well as the birds do, would you call it stealing, after all?

Nobody knows how many birds there are in this country, of course, but out in Illinois they have been taking the best bird census they could; and basing an estimate on that, the friends of the birds tell us there may be something like a billion and a half of these feathered friends. Seems like a good many; and yet, when we think that they have to stand watch and ward over 842,000,000 acres of land, the number grows small proportionately. We wish there were more of them.

Another pleasing thing about this is that the national government is doing something more than count the birds. President Roosevelt has been a pretty busy man, but not too much so to think about the birds; and under his direction within the past five years twenty-three reserves have been established for the protection of the feathered songsters of the fields. These are partly in the South, partly in the northern central states, and some of them are away on the Pacific coast. On these reservations it is contrary to the law to kill a single bird or even to molest their nests.

How bright this example shines in contrast with the determination of a certain person—and I am sorry to say that person is a woman—to establish a farm down on Long Island, where she intends to breed birds just for their plumage. The ostrich and smaller birds are to be raised there; but does it not seem a pity that any one, and especially a woman, should turn her attention to bird raising just for the sake of the money there is in it? If I were a woman, I never would buy one of these feathers! That is, I do not think I would. But how can I tell what I would do if I were a woman?

E. L. VINCENT.

### Disposing of Corn Stalks

WHAT to do with old corn stalks where stock is fed is often a problem. It looks untidy to let them lie, and if plowed under they lie unrotted for a long time, and the fertilizing value of a ton is hardly perceptible. I find the best way is to rake and pile them, then pile on all the available briars, old brush and rubbish, and burn them. The available ash is then right where it will do the most good at once. C. E. DAVIS.

### Facts for the Farmers

Have you built that implement house that you have been thinking about building for several years, perhaps? When tools are housed their life will be just about doubled.

Provide plenty of hedging in the stables and you will be able to make quite a large amount of manure to apply to the land, which means dollars in the pocket and better land. R. B. R.

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# Around the Farm

## Growing Hay for Market

IT MAY seem to be against all the fixed rules of maintaining fertility of the soil for future crops when I mention hay as a valuable cash or market crop to be sold from the farm, but on some farms and under certain conditions I believe that a farmer is justified in depending upon hay as a money or market crop.

One of the points that commend the growing of hay for market is the fact that the farmer may set aside a certain portion of his land for growing this crop, and reduce the amount of labor required to keep up the other portion of the farm during the whole year. On most all of our farms there are certain portions that are adapted to growing hay and that cannot be made to fit nicely into any rotation scheme which we may desire to follow in growing food for our live stock. One other advantage is the fact that when a certain portion of the farm is set aside for growing hay, the other fields may be fertilized more liberally and cultivated better, thereby making fully as much profit from the smaller acreage as when the whole farm was worked less intensely, leaving the entire market value of the hay crop as a profit over the old method of skimming over the whole farm every year.

In this country the higher market value of timothy hay over hay of a more proteinaceous nature makes the business of growing hay for market and growing hay for feeding live stock on the farm entirely different propositions. It is always advisable for us to grow clover and alfalfa for feeding live stock on the farm, yet the demands of the markets in all of our leading cities make it more profitable for us to grow timothy for market than to grow hay which commands a less cash or market value.

This discrepancy between the comparative feeding value and the selling values of clover and timothy hay in our leading markets is a matter that is very difficult for the average farmer to understand, but it is nevertheless the condition which we confront when we are growing hay for market. When the demands of the market call for the clear timothy, it is the kind we must supply if we make the most money from our business. It is not my purpose to induce farmers to stop growing clover and go into the business of growing timothy for market, but rather to explain how the market demands must be met, regardless of the actual feeding value of the hay.

In growing hay for feeding on the farm it is always advisable to grow alfalfa, clover or some member of the legume family, or at least a large proportion of these, because of their high protein content and their universally recognized function as a producer of blood, milk, muscle and growth, and also because of the known value of these plants in improving the physical condition of the soil and increasing the nitrogen content of the soils in which they are grown; but hay that is made from these plants is considered too laxative in its effects for feeding city work horses under conditions existing there, and as the great bulk of hay sold on our markets is consumed by city horses, this explains why timothy hay seems better adapted as a market hay. This demand has caused it to bring a price far in advance of its actual feeding value, while clover hay has not been in demand for feeding off the farm to a sufficient extent to maintain a price equal to its actual feeding value. Many farmers believe that timothy has more real feeding value, because it will command a better price on the markets of the country.

When seeding the ground with timothy, better results will come by seeding without a nurse or robber crop. This also applies to the old custom of sowing clover and timothy mixed and waiting until the grain and clover had held the timothy back for two or three years and then expecting it to come on and produce large and profitable crops. When we stop to think, is it any wonder that the average yield of timothy is so small? We have been trying to smother it out with grain and clover for the first two years and doing all that we could to kill it out. When we study the common practise of growing hay on our farms it is a wonder that we get as good crops as we do, considering the care we give our meadow lands.

When a field is selected for growing timothy it should be plowed early in the summer and worked thoroughly until about the middle of August, when it should be seeded with timothy and about six hundred pounds of acid fertilizer and one hundred pounds of sulphate of potash

drilled into the soil three inches deep. The reason for advising this large application of fertilizer at this time is because it is impossible to fertilize the plants deep enough where the roots will find it after the field is seeded. It is a waste of time and money to apply phosphoric acid and potash to a field after the grass has become thoroughly seeded, for it will become fixed in the surface soil and attract the roots of the plants in that direction rather than down into the soil where they belong.

Only the best timothy seed should be used, and it can best be applied with a wheelbarrow seeder. The field should be rolled and gone over with a light smoothing harrow with the teeth set well aslant. When the grass first starts in the spring, nitrate of soda may be used by applying broadcast at the rate of about one hundred and fifty pounds to the acre. In growing market hay I have supposed that the farmer had practically withdrawn that particular portion of his farm from his regular scheme of rotation, and would apply his manure to that portion which was used in the regular rotation of crops which were grown to feed the live stock that were kept on the farm. Thus I am recommending the use of commercial fertilizers on the hay land. If plenty of manure was made to use for top dressing the newly seeded land, it would not be best to purchase nitrate of soda; but in growing hay, good results will come from the use of potash and phosphoric acid on most dairy farms, either by direct application or by using as floats in the manure.

I have seen four tons of good timothy grown on an acre when the plans I have outlined have been followed; but when four tons of timothy are grown on an acre it will not grade as prime timothy. Prime timothy will not usually exceed one to one and one half tons to the acre, and so it will be found more profitable to grow a grade lower and more to an acre. Few markets of the country will pay the price demanded by the growers of prime timothy.

W. MILTON KELLY.

## That Slick-Tongued Promoter

FARMERS are sometimes too easily taken in by plausible schemes which are in fact more or less of a fraudulent nature. Any plan that offers something for nothing or a great deal for a very little is sure to meet the favor of a great many people. But in this age of wide-spread information the agent or promoter with a fraudulent scheme ought to meet with a cold reception when he gets out among the farmers. Nevertheless, many of these snides still find rich picking in the country.

I was very much surprised not long ago at the great success a promoter of a Mexican rubber plantation had in selling stock in my community. I was myself taken in by such a scheme about ten years ago. But I have had experience which has made me wiser, and I supposed that the general information which the public has received through the press as touching this peculiar and special means of separating the unwary from his cash had enlightened the people pretty generally. I was mistaken, however. The agent was good looking, insinuating, and had an air of sincerity. In about a month's time he took out of the community in his commissions alone more money from my neighbors than any one of them can hope to realize from his farm in the next two years. The promises he made for the company are glowing. But the investor is several thousand miles away from the property in which he has bought an interest. He is five hundred miles from the offices of the company. He does not know a single officer of the company personally. He will have to wait eight long years before even the promises of returns mature.

One thing that gave the promoter a good send off with the folks here was the fact that he was accompanied by a retired minister of the gospel, who formerly resided here, and who introduced him to prospective investors, and shared in the commissions. The minister is well known for honesty and integrity, but this deal let him away down in my estimation. I very much fear that he will not stand so high in the estimation of these folks when they discover how badly they have been fooled. The ministry is a high and holy office, but when one occupying it makes his position a business asset he reveals an ethical code that ought to make wise men distrust him somewhat in a business deal.

Iowa.

M. C. RAMEO.



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# Gardening

By T. Greiner

### Some Points About Onions

From the many inquiries on the subject which I receive from our readers, it is plain that onions and onion growing are of particular interest to garden makers all over the country.

In the columns of an agricultural paper we can give much general information which will help the small gardener to grow these and other garden crops successfully, but it is hardly to be expected that every point in the business can be completely covered. Any one who makes or intends to make onions a specialty or a matter of business should first of all seek to secure all the available information on onion growing as a business by reading some of the standard books and special treatises on the subject. Various bulletins on onion growing, published by the Department of Agriculture at Washington, and by several of our experiment stations, may be had for the asking, while the best of the standard onion books now published do not cost over fifty cents a copy. When information can be had with so little effort or cost, it would be unwise to go blundering along without it. When there is so much at stake, why run risks?

I do not advise every one to grow the large sweet Spanish onions by the newer transplanting system on a large scale or in a general way. When you grow onions for fall and winter market in a business way you will probably grow Yellow Globe, Yellow Danvers, White Globe, or whatever your market calls for, in the old way.

You want a rich, fibrous loam, and to use manures or composts that, like the soil, are reasonably free from weed seeds, with a free hand. Prepare this soil thoroughly to have a perfect seed bed, and then sow good water-cleaned seed, at the rate of five to six pounds an acre, with the garden drill. We usually make the rows fourteen to sixteen inches apart. Sow as early in spring as the ground can be put in good order. This is most important. Use the hand wheel hoe early and often. Weed and thin as often as needed. This ought to bring you a good crop. Youngsters twelve to sixteen years of age may be employed to do the weeding and thinning, but they need close supervision. Pull the onions when the tops begin to dry down in the fall. Cure and sell—that is about all I can say here.

For the onions of the large Spanish type you want a special market, best a near retail market. Every home grower ought to have a bed of them, and the market gardener who supplies regular retail customers with vegetables, or sells to grocers for retailing, will find in these large sweet onions a vegetable that offers great chances of profits and satisfaction. To this class of people I say, by all means try the Prizetaker and Gibraltar onions, and the "new onion culture."

### Literature on Horse Radish

A book or "literature" on horse radish is wanted by a reader in Elyria, Ohio. I believe that the government some years ago issued a bulletin on horse-radish growing, with especial reference to the Maliner Kren, a new and improved variety from Bohemia. There are also chapters of some length and detail in the various modern garden books. I am not aware, however, that there is a special treatise or book on horse-radish culture in existence, although the subject seems to be fully worthy of it. For those who have the right conditions and have learned how to produce good roots, horse radish holds out very good prospects of profit.

### The Best Poison

Unfortunately we have to use poisons. We need them in our business, or certain insects would soon put us out of business. Paris green has held the fort for many years. Even now many stick to it and will not hear of any substitute for it. But it is gradually crowded to the rear, although its claim for cheapness is hardly disputed by anybody. Arsenate of lead, however, is coming to the front as the most efficient and safest (for the user) of all arsenical poisons now known.

How fast its use is increasing may be best shown by the fact that while the New York State Fruit Growers' Association during 1907 only sold and distributed to its members a little over one ton of arsenate of lead, the demand for it by members and sale by the association increased to ten tons in 1908. At this rate of increase it will not be long

before Paris green is heard of no more, and arsenate of lead is "it;" and deservedly so.

I have not used a bit of Paris green for five or more years. Arsenate of lead has helped me to successfully (and with comparative ease) control most of the insect enemies of garden and fruit crops, even those which, like the yellow-striped cucumber beetle, seemed to defy our Paris-green applications, or even to fatten on that form of arsenical poison.

At the recent meeting of the mentioned association no expert or scientific investigator had a good word to say for Paris green. Arsenate of lead seemed to have the field all to itself.

### Growing Cantaloupes

C. E. H., a Tennessee gardener, wants to grow cantaloupes for market. His soil is clay and easily worked. What is the best thing to use, he asks, manure or commercial fertilizer?

We usually prefer a soil of rather sandy character for melons, but I do raise large crops of fine melons on a somewhat heavy loam. In order to have a full measure of success, however, clay loam should be well supplied with vegetable fiber or humus. Here we can easily get this kind of soil in proper shape for growing melons, or almost any other crop, by growing clover on it for a few seasons, then turning the sod under, preferably with a good coat of stable manure, and planting vine crops at once, or a crop of corn, oats, rye or beans to precede the melon or cucumber crop. When we have plenty of good stable manure we use this rather than commercial or chemical fertilizers. Coarse manures put the soil in better mechanical order, by adding vegetable fiber to it, as shown by the darker color of soil thus treated.

The best way of using commercial fertilizers, especially superphosphates and potash, is by applying them to the clover so as to get a good growth of this, and to get more stubble and root to turn under to feed the succeeding melon crop. But some fertilizers may also be used directly for the melons. They may be applied broadcast before harrowing, all over the field, or around the hills in smaller amount. A few hundred pounds of a good complete fertilizer (potato or vegetable manure) often give good results.

In the Southern states cow peas may be used in place of the Northern clovers to put humus into the soil.

### Onion for South Dakota

Mrs. W. P. M. wants me to name the best kind of onion for western South Dakota, and to tell her what kind of an onion the Bermuda is.

I believe that any of our standard onion varieties may be grown successfully on suitable land (rich, well-drained loam) in any state in that region. For fall bulbs, seed to be sown in open ground, try Yellow Danvers and Yellow Globe, or if seed is to be sown early under glass, and the plants transplanted to open ground in early spring, try Prizetaker and Gibraltar.

I have never been able to do much with the Bermuda, a mild onion grown in the Gulf states (Texas, Louisiana, etc.) and in the Bermudas.

### Welsh Onion for the South

A reader in Suffolk, Virginia, asks what time is best for sowing Welsh onion in the Norfolk trucking regions, and how thickly it should be sown.

I use this onion only for a first-early green or bunch onion. It has no particular value for any other purpose that I can discover. Here I sow it in spring or early summer, up to July 1st. In Virginia it might do to sow it a month later, although it would do no harm to sow it in spring almost any time.

I sow it at the rate of ten or twelve pounds to the acre. The Welsh increases by division, and with the longer season in Virginia, which gives it a chance to increase the plants considerably, somewhat lighter seeding would probably answer the purpose. I would advise, however, to plant this onion on an experimental scale at first, so you will see what you can do with it.

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# Fruit Growing

By Samuel B. Green

## The Care of the Peach Tree

S. G. C., Maxfield, Ohio—You state that you set about four hundred peach trees two years ago, that those you set on level ground are very thrifty and bushy, and that those on the upper ground are more open and have apple trees between them. You ask if they ought to be cultivated another year, if they should be trimmed, and if so, how.

If your trees are in good condition it is quite likely that you will have a considerable crop of fruit next year, and if they have not been pruned it is more than likely that they have many awkward, long branches that would be liable to break down with a heavy load of fruit and will need shortening. In most of the Eastern states it is customary to prune peach trees every year, cutting off from one fourth to one third of the new growth, so as to keep the trees compact, and also for the purpose of thinning the fruit, which peach trees are very liable to set too heavily. I think the tall shoots in the middle of your trees should be shortened back, and that on the flat land, where the trees are making very heavy growth, I should not cultivate any longer, or at least not for a few years, as the growth, judging from your letter, is more than it should be, and cultivation will only tend to encourage it, while grass will have a tendency to check the growth.

It is quite difficult within the limits of this department to direct how to do pruning for a case like yours, and I would suggest that, as there are probably peach growers in your vicinity, you talk the matter over with some of the best of them and find out their views in regard to the same.

The stocks on which peach trees are budded are grown from the peach pits which are gathered in the autumn and wintered over mixed with sand or loam. These are all carefully examined in the spring at planting time, and those which are not cracked are gently broken with a hammer. These are placed about eight inches apart in rows four feet apart, and will soon start and make stocks that will be ready to bud by the middle of summer. The customary season of the year for budding peach trees in the Northern states is in August; the buds remain dormant until the following year, when the stocks in which they are inserted are cut off just above the inserted buds, and the buds forced into growth. In the Southern states the practise is somewhat different; it is customary there to bud the peaches in June and start the buds at once into growth. By this means a tree sufficiently large for transplanting can be grown in one season where the seasons are long. June budding is also practised at the North the same as at the South, but in this case the plants do not make a sufficiently large growth to be desirable for planting out, and it is a practise that is confined almost entirely to the growing of small plants to be shipped by mail.

The general subject of the insertion of the bud is a matter of considerable detail, and there is hardly room to treat it successfully within the limits of these columns; hence, I would suggest that those who intend going into this work obtain a little pamphlet, entitled "Amateur Fruit Growing," sent out by the Webb Publishing Company, of St. Paul, Minnesota, which I think can be obtained for fifty cents. This contains full details for the propagation of fruit plants.

## Fruit and Forest Trees in South Dakota

Mrs. J. S., Laporte, Iowa—On most South Dakota farms the windbreak is a necessary pioneer improvement. As a rule this had best be made of white willow, golden willow or green ash, or they may all be used in mixture. It is important to cultivate the ground rather thoroughly for the windbreak before it is planted out. It is a waste of nursery stock to plant it out in sod, and failure is almost certain to follow this practise.

After the windbreak is well started you can get the pine, fir and other trees to grow under its protection, but until the windbreak is properly started there is little use in planting out anything of this sort. The same will hold true in regard to fruit trees; there is no use in planting out fruit trees until the windbreak is sufficiently started to give them winter protection. It may, however, be all right to start small fruits, such as strawberries, currants and gooseberries, that can easily be protected by straw,

of which there is always plenty on Dakota farms.

I would suggest that you write to the experiment station at Brookings, South Dakota, and ask them for any publications they may have bearing on this subject. I would also suggest that you get a book, entitled "Forestry in Minnesota," which can be obtained postpaid for thirty-seven cents by addressing the Forestry Department, University of Minnesota, St. Anthony Park, Minnesota. This is a book of four hundred pages that is a very complete manual of forestry, and much of it will apply as well to South Dakota as to western Minnesota. I would suggest that for a list of fruits adapted to South Dakota you correspond with the experiment station, as recommended above, and also inquire of the secretary of that association, Prof. N. E. Hanson, at the experiment station, in regard to fruit lists.

## Grape Bugs

O. L. L., Forestville, Virginia—You state that grape bugs destroy the flowers and fruits of your grapes, so that you do not have any crop. I do not know what insect you mean by this term, and it is possible it is something I do not know about. I am inclined to think, however, that whatever insect it is, you will secure some, if not complete, immunity from their attacks by spraying with Bordeaux mixture as soon as they make their appearance. This will not only prevent injuries from the bugs, but will have a tendency to make the vines more healthy by protecting them from grape diseases.

## Care of the Raspberry Patch

F. A., Wilmington, Ohio—The thinings that you take out of your patch will do all right for starting new plants, but of course they must be taken up with a portion of root, and we generally prefer all the roots that will come with them easily. In doing this, the top should be cut off at about one foot from the ground. They will not grow from stem cuttings, but red raspberries are often grown from root cuttings.

It does not matter whether this work is done in the spring or fall, provided it is done before the sprouts start. As a rule I think red raspberries do best when transplanted in autumn.

## Currant and Gooseberry Cuttings

An Ohio man asks me if it is too late to make cuttings from currant and gooseberry bushes; if I think they will root as well if cut now as if cut in the autumn.

I have made cuttings of currant and gooseberry bushes from September to April, and had about equal success in rooting them. If cut early in the fall and buried under the soil at once they will callous over where cut, and sometimes start roots, and will start growing as soon as set out in the spring.

I would not make the cuttings when the wood is frozen, but during a mild spell. Then they should be buried at once about a foot deep in the soil, a bunch of litter thrown over them, and left until the currants start into growth in the spring, when they should be set out.

To make a good job of it I would have the cuttings about a foot long, and I would set them about eight inches deep in the soil, then mulch them with straw or coarse manure, covering a space around the cutting about eighteen inches square. Treated in this manner I have not lost one per cent.

One day last summer I saw a man in town with two bushels of the largest and finest-looking currants I ever saw. He sold them at eight cents a quart as fast as he could measure them out. Everybody declared they were a new variety, and he could have taken several orders for cuttings. When he was done I told him that I knew they were the old Cherry currant, and asked him how he grew them so large and fine. He said he had them planted along the east side of a six-board fence, so that they were shaded from the afternoon sun. Then he manured the bushes heavily with coarse barn-yard manure applied in the fall. That's all there was to it. Ordinary Cherry currants went begging at five cents a quart and his were snapped up at eight cents as fast as he could handle them.

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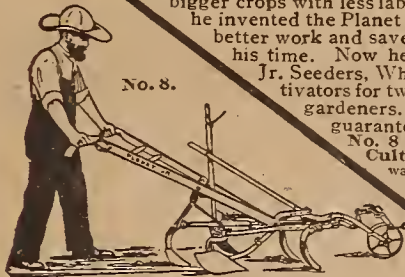
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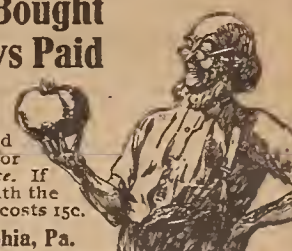
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# Review of the Farm Press

What Others Are Saying About Important Farm Matters

## Raspberry Culture

**T**HE raspberry is the most honest of berries, no waste, no stems to pick off, most uniform in size. As soon as picked it is ready to set on the table or for canning or evaporating. It loses less in weight than other berries. With me the last twenty-five years it has been the surest crop. Only two seasons during that time was the yield reduced to half a crop. It is adapted to most all soils and climate. The blackcaps well cultivated will bear six to eight crops.

I find it best to plow the ground in the fall for planting; thus in spring it will harrow level and mellow. Make the rows about seven feet apart and four inches deep with a fourteen-inch plow. This will make a flat furrow at the bottom. Then every three feet make a cone-shaped heap like an inverted saucer, set the plants on this hill, spreading the roots evenly around it, and press the soil on the roots, with one inch of loose soil on top. This being a ground mulch, it will prevent the soil drying around the roots. The crown of the plant should be about one inch deeper than it grew in the bed. Raspberries can also be set with spade or dibble like strawberries.

Beds of the Antwerp family are propagated like blackberries, by sprouts and root cuttings, and planted and cultivated like blackberries. The rows being seven or more feet apart, the first season potatoes, beans or a similar crop can be planted between the rows, as they need the same cultivation. When the canes are about fifteen inches high pinch off the tip ends two or more inches. The second season let the canes grow two or three feet, according to their strength, then pinch or cut them off. This clipping of the ends will cause the growth of laterals or side branches. These in turn should be cleft if no plants are wanted. It is necessary to go along the rows about every twelve days with small clippers and thin the canes. Thus the yield will be doubled, to say nothing of being much easier harvested. Cultivate well until the last of July or the first of August. Late cultivation causes late growth and is liable to make them winter kill.

The cap varieties are propagated from the tips of canes in August or September, or as soon as the tips are nearly bare of leaves and have put on a dark purple color. Then layer them—that is, bury them about two inches deep. In wet weather, if grass covers the ground, they will run under the grass covering and take root without layering, and in a few weeks make fine rooted plants which can be transplanted by cutting off the parent cane back to within about six inches of the roots. But it is better to let them remain for spring planting.

The red of the Antwerp family are propagated by suckers and root cuttings and the planting should be done in the early spring. Take out the old canes as soon as the crop is picked, and burn them, thus destroying insects and fungi that may have infested the patch. The hybrid, a cross of the blacks and reds, can be propagated by tips and sprouts, but I have as yet found none worthy of growing. Shaffer's Colossal is one of these.

The past thirty years I have tested over thirty varieties of raspberries. I got my first plants from Palmyra, New York. They came with great promise, but were not well adapted to my soil and climate. With the newer varieties the yield is now more than doubled and the ripening twice as long. The varieties that succeed best with me are the following: Palmer, one of the earliest profitable sorts; Cumberland, very large and productive; Kansas, a well-tested and good variety; Cardinal, a dark red, very large and prolific; Hay Maker, dark red, ripening after Greggs and when about all other varieties are gone. This variety is larger than any other raspberry I know of, and also yields more. It came through the severe winter two years ago uninjured, but the canes should be cut lower than any other varieties.—Jacob Faith in The Journal of Agriculture.

## Putting Out Fruit

**D**URING the next three months a large number of our readers will be visited by agents who wish to sell them fruit trees and plants of one sort or another. The fruit-tree pedler is responsible for a large amount of wasted money on the part of the farmer, but there is one thing that must be said for him, he has persuaded thousands of farmers to put out

fruit who otherwise would not, and while much of it was worthless, some of it proved all right.

The average grain and stock farmer does not want to bother with much fruit, not more than enough to give his own family an abundance for its own use. He does not have the time nor the inclination to attend to more. He should by all means, however, have as much as he needs for his own use. Fruit contributes materially to both the health and the happiness of the family. But buy fruit trees with judgment. Buy varieties which have been proved to be hardy and adapted to your particular section. The horticultural societies and experiment stations have worked out this subject thoroughly, and have learned from experience the varieties of the different fruits which are best for the different sections of the various states. Address a letter to the professor of horticulture at the agricultural college of your state, and ask him to give you a list of the varieties of the different trees and small fruits adapted to your locality. Then get what you need from the nearest reliable nurseryman. If there is a fruit specialist or nurseryman anywhere near you, go and see him. Usually he is the man with whom to deal.

Don't be fooled by wonderful new varieties. Make up your mind that all of these worth anything are old varieties renamed. If you buy from an agent, make sure that he is accredited by a responsible firm and insist that the firm guarantee the stuff you buy to be true to name. Above all things, do not enter into any contract with an agent to set out a certain number of acres and take part of his pay in the crop when the trees come into bearing. The part you pay in cash on such contracts is more than a fair price for the trees, and that is all the agent is after.—Wallaces' Farmer.

## A Question of Fertilizer

**I** HAVE had a good deal of experience with fertilizers, and I have come to the conclusion that most of us are entirely too wasteful, especially with our manure. I have made up my mind that no more manure shall go to waste on my farm, either liquid or solid, if I know it. There will be a cement floor under the animals, and there will be plenty of bedding to absorb all the liquid.

When our manure is hauled out it will be put in a big pile and tramped down tight, or it will be spread broadcast on the land at once. I will not tolerate one instant the old wasteful practise of dropping manure about in little piles, over a field, and leaving it to heat or leach into the soil directly underneath, making a few rich spots, and leaving the rest of the manure little better than so much chaff.

The greatest need on our land is vegetable matter, and to my mind this is the greatest need on most of our Southern farms. Everything that looks like manure or fertilizer must be saved and returned to the land. Nothing that will rot and make humus must be thrown away or burned up. This may sound strange to some of our friends on the alluvial lands in parts of Louisiana and Texas, but over the greater portion of the South it is necessary.—F. J. Merriam in Southern Ruralist.

## Orchard Notes

Keep your trees headed down so that they will not reach up to the moon. We have seen old apple trees that were certainly thirty feet tall. It is as much as a man's life is worth to pick fruit on such trees.

Dipping nursery stock in lime-sulphur wash or other insecticides has recently been much advocated as a substitute for fumigation with hydrocyanic-acid gas. The station at Geneva, New York, finds, however, that this treatment, if used at all, must be handled with care to secure scale destruction without injuring the trees. With the sulphur wash, exposure of the trees for too long a time or at too high temperature resulted in injury, while with any of the materials used, exposure of the roots to the mixture resulted in serious injury to the stock. For nurserymen, the station still recommends fumigation as most effective and least liable to injury, and would advise orchardists to use the lime-sulphur as a spray after the trees are set, rather than as a dip when they are received.—Farm Journal.

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There is scarcely any limit to the possible improvement in seeds, but it takes time and money. We have been improving flower and vegetable seeds for over 50 years. More than 2000 people are working to make Ferry's Seeds suit you. Buy the best—Ferry's. For sale everywhere.  
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1 pkg. Baby Pop Corn, Smallest, 1 ft. high, perfect ears.  
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## Review of the Farm Press

What Others Are Saying About Important Farm Matters

### The Effect of Cash Rent and Grain Rent On the Soil

WE ARE not now discussing the question of whether it is better for the owner or the tenant to deal on the basis of cash rent or grain rent. That will be settled in different ways by varying conditions. When seasons are favorable and prices of grain high the landlord would naturally prefer grain rent, because experience has shown him that he receives more net income in this way than he would dare to ask the tenant in cash.

When the owner is so situated that he can keep an eye on the farm operations and can dispose of his share, he prefers the grain rent, of course. When he lives a long distance from the farm, however, and can neither keep in touch with its operations nor market his grain, then he is willing to accept cash rent. When the seasons have been bad for a number of years, so that grain rent has not paid well, he then insists on cash rent. If he holds the farm for speculation and cannot lease it for more than a year at a time, he again prefers the grain rent, other things being equal.

The tenant of limited means prefers grain rent, knowing that if he should meet with a bad season or misfortune in any way he might otherwise sink his capital or savings. On the other hand, the tenant who is forehanded and can engage in live-stock farming and can secure a lease for a number of years, naturally prefers cash rent. Decades hence, when we settle down to a regular system of farming in the West, we believe that cash rents will be the rule and grain rents the exception. This, however, is not what we started to speak about, but rather the effect of cash and grain rent on the farm itself. For we are interested in the land as well as in the landlord and the tenant. They will pass away; the land will remain, and the welfare of the future generations will depend very largely on whether the land has been farmed in such a way as to retain, if not increase, its available fertility.

#### Grain Versus Cash Rent

It may be safely assumed in all deals between landlord and tenant that each will look after his own personal interest. The tenant, whether paying cash or grain rent, will do his utmost to get all that he possibly can out of the land during the term of the lease. He will get every bushel of wheat, every bushel of corn, every ton of hay that he can possibly obtain in that year. He won't have the farm the next year. Whether it gains or loses in fertility is a matter of no consequence to him.

In renting for a share of the grain he can deal only to a very limited extent in live stock; hence can have a very limited amount of manure available. Therefore, it seems to us that the custom of grain rent so common in recent years will sooner or later tend to decrease soil fertility. This would also be the case where the land is rented for cash for a single year. The landlord must not expect the tenant to lie awake at night or work extra hours to maintain the fertility of land when his tenure is definitely limited by the lease to a short period.

Cash renters generally have a longer tenure—that is, their leases are for a longer period than grain rent—and cash renters naturally pay much more attention to live stock than those that rent for a share of the grain. Live stock means manure; and on the lands of a neat farmer that manure will be hauled out for the looks of the thing as well as for increasing the fertility of the soil.

#### The Long Lease is Desirable

If the lease is for a long period, or for a short period with the understanding that it is terminable at will of either party, where, if the tenant is a good one and the landlord lives, it is likely to continue for a series of years, in that case the land is likely to maintain and even to increase its fertility, to the benefit not only of the parties directly interested, but of the entire community. Therefore, the sooner we settle down to business and deal in land as a permanent investment, the profit of which is determined largely by the maintenance of its fertility, the sooner we will drift into cash rents for a period of years, or at least with the understanding that the lease can be continued at the will of both parties.

The tenant, unless he is forehanded, cannot afford even in a section where crops are reasonably certain to pay a large cash rent for a single year. A hail storm or an untimely frost or a wet harvest or a season of drought or flood may prevent him from making more than a bare living, to say nothing about paying the rent. Or he may be able to make only half the rent; and in this case he exhausts his available capital and is not likely to continue to rent for another year; whereas over a period of five years he is morally certain to have two or three good years, possibly one or two where he can "make a killing."—Wallace's Farmer.

### Foot and Mouth Disease

Foot and mouth disease has made its appearance in the United States twice during the past ten years. The first time, in 1902, an unexpected outbreak occurred in Massachusetts, Rhode Island, New Hampshire and Vermont. By prompt action of the United States Department of Agriculture Bureau of Animal Industry, this outbreak was quickly stamped out. All affected animals were destroyed and either burned or buried deeply in the earth after first covering them with lime.

All premises were thoroughly disinfected, as well as all clothing worn by the attendants. The national quarantine which was placed upon animals in Massachusetts, Rhode Island, New Hampshire and Vermont was not raised until after it was certain all disease had been stamped out.

Recently the disease has been discovered in a much wider district, involving Maryland, New York and Michigan. By strict quarantine, the destruction of all animals found affected and by thorough disinfection it is hoped that the disease will be entirely eradicated.

It is necessary that this country be kept free from foot and mouth disease, as otherwise an embargo will be placed upon American cattle, thus resulting in great financial loss to the stock-producing West.

In European countries, where the disease has existed for a long time, the number of animals that die from this disease is only about five per cent. The greatest loss is as follows: In dairy cows the owners suffer the loss of milk for from four to six weeks. Cattle lose flesh, due to the high fever, and inability to eat, due to the fact that the sores and vesicles (water sacs) in the mouth make it impossible for them to eat.

After the animal has been exposed to the disease for about one week it will be taken by a chill, which is followed by fever. In about two or three days small vesicles (water sacs) will be noticed in the mouth, on the borders of the lips and tongue. These vesicles contain a yellowish thin fluid. The redness about the feet, which is followed by the formation of vesicles like those in the mouth, takes place soon after the formation of those in the mouth. Thick saliva dribbles in rope-like strings from the mouth.

Animals which have recovered from the acute attack are found to be seriously injured. Many of them will lose their hoofs; others are chronically lame. Abscesses may form in the udders of cows giving milk. Pregnant cows may abort.

In conclusion, we may consider that while the loss from death due to the acute attack is perhaps only five per cent the total loss in death, loss in milk, loss to fattening cattle, etc., will amount to perhaps close to fifty per cent.

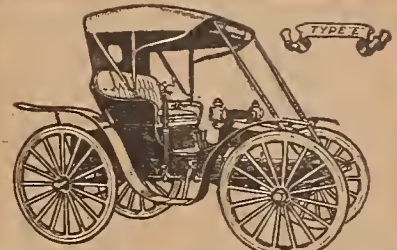
The only thing is to keep the disease out of the United States. Prompt action by the federal authorities who control interstate commerce, destruction of the animals, thorough disinfection and strict quarantine are the only sane measures.—B. F. Kaupp in Colorado Agricultural College News Notes.

### Poultry Pointers

The farm poultry flock too often is composed of chickens, ducks, geese, turkeys and pigeons, all living together as one common family. That is a mistake.

The best way to keep the premises clean of lice and mites is to begin in January to wage war. Once a week pour kerosene over the roosts, into the cracks of the nest boxes, and along the dropping boards. By making this a weekly duty there will not be any trouble when hot weather arrives.—Farm Journal.

## A MOTOR CAR FOR THE FARM



You would not think of using a silver milk-can for carrying your product to market. On the same principle you should not think of using pneumatic tired, low-wheeled cars on the farm and on country roads. Nor would you think of buying milk-cans made of cardboard. On the same principle you should avoid carriage motor cars so crudely and cheaply constructed that they will not last long enough to give you your money back in service—and can never be depended upon. The Reliable Dayton will be found throughout America in country use, giving steady service day in and day out; service which equals the horse for efficiency and adds to it the tireless capacity for travel of a dozen horses. Motor cars first came into city use because the first motors were built for city streets. Yet farmers have more use for a self-propelled vehicle than any other one class of people, because it is there the motor car can be made most serviceable. But, a motor car for the farm must be constructed for harder work than the city car and it must be economical to maintain in order to be profitable. The Reliable Dayton is the product of brains, skill and experience combined, with the foremost motor carriage design, materials and workmanship. It has made good in steady, economical and efficient service. It is cheapest in the end because built right in the beginning.

Runabout . . . \$800  
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Give us a fair, square chance to prove that you ought to own the Goldenrod in preference to any other separator, and we'll prove it.

Write first for the booklet, in which thousands of enthusiastic owners tell what the Goldenrod has done for them, and we will tell you about our special free trial proposition—an arrangement whereby you can prove our claims on your own dairy floor.

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for  
1909



The 1909 Model U. S. Cream Separators retain all features that have given them their great reputation for durability and efficiency, and have several improvements that make them even to a greater extent than ever before, the ideal machine for dairymen who are posted and who demand the best. And by intensifying the circuitous and tortuous currents of the milk in its passage through the separator bowl, we have been able to

## Greatly Reduce Diameter of Bowl

which makes them operate easier than ever and still retain their great milk capacity.

Notwithstanding most manufacturers were complaining all last year of dull times and small sales the

## UNITED STATES CREAM SEPARATOR

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Do not forget that the United States has beaten every separator in endurance tests and holds the **World's Record** for clean skimming.

No dairyman can afford to purchase a cream separator until he has first examined the construction and operation of the

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We have distributing agents in every dairy section in the United States and Canada.

**Vermont Farm Machine Co.**  
BELLOWS FALLS, VT.

## Live Stock and Dairy

### The Hog Nests

How much satisfaction it gives us, as we stroll in from the barn on a cold, rainy evening, to know that the swine are comfortably nested with good, dry material, and groans of discomfort will not reach our ears, coming from the pig pens, while we are comfortably taking our after-supper rest about the cozy fireside with our family.

Many times have we felt this keen satisfaction in our life upon the farm during the past twenty years, for if there is one thing above another among our evening chores, it is to go about the feed lots and see that the stock are all bedded down comfortably for the long winter night.

Especially is this true of the hogs, for discomfort among them when zero weather is hovering, and they crowd together in order to make themselves comfortable in a soft, slushy pen, with sleeping quarters equally as disagreeable, is not to the credit of any farmer who pretends to be humane and well respected in his community.

Looking after their nesting conditions is always our last chore at night before going to the house, and many a time might we have let them go, when an armload of straw or bundle of fodder stalks has added much to their comfort, and with fattening hogs, much to our book account, for a bunch of fattening hogs can worry off more in one disagreeable night, quarreling to get the best spot to lie down, than can be gained by a whole week's feeding.

We employ the A-shaped nest, built of good matched material and neatly painted, and we have enough of these nests about the premises to comfortably house every hog we own.

We use no permanent floors, as our soil is well drained, and by placing them upon a prominence in the fields or lots, and bedding them well with stalks from the feed lots, we can always keep our hog nests high and dry, and as they become filthy, remove the nest to new positions, burning up the old nesting material, to eradicate any disease germs, and convert the nesting into charcoal ash for the hogs to consume, which is always beneficial.

Then the fall pigs cannot thrive if kept shivering and fighting cold frosts. They must have plenty of warm, dry bedding.

Corn fodder, straw and leaves, make capital bedding for them, and we never neglect to see that they have a comfortable place.

When we leave our hogs in the evening we like to have the satisfaction of looking into their nests, with a feeling that it looks sufficiently inviting to us that we might crawl into the nests ourselves and pass a comfortable night of rest.

GEO. W. BROWN.

### Millet as Feed for Dairy Cows

"I'll never put in another crop of millet," said a neighbor. "I don't like it. It's no good for milk cows. I fed my milk cows millet for a week and the milk flow has been cut down about three fourths."

Now this neighbor did not understand the composition of millet. He thought it was the nature of the millet to work against the milk flow. It is not, however—not any more than any other food of the same composition. Millet hay is not a rich food. It contains very little protein. The greater part of it is crude fiber. It answers the purpose as a bulk food, but not as a rich food. If this neighbor had fed his cows a ration of concentrated food rich in protein and fats with the millet he would not have had the trouble of which he is now complaining.

"But my cows get grain," this neighbor continues. "I let my millet get ripe before I cut it. It was heavily seeded, too, and the cows get all of it."

Wrong again! The cows get very little benefit from this seed. The system cannot act upon this whole millet seed. Millet seed is a very rich food if well ground, but it must be ground to get good results. Furthermore, the millet hay was all the harder and coarser for having been cut so late, and the cows did not get so much benefit from it. Millet answers its purpose, and is not such a bad crop to raise, after all that has been said against it.

Millet hay to give the best results must not get too ripe. It is best to cut it just when the seed is beginning to get ripe. It will not be so hard and woody then and will have a higher feeding value.

GREGOR H. GLITZKE.

### Treatment and Feeding of Ewes and Lambs

It is of great importance to get the ewes and lambs from the fold as soon as possible (except in cases where lambs are very weak, and these must have special care), because sheep, and especially highly bred ones, will not stand confinement. The ewes with the twin lambs should of course have the best pasture, but at the same time the single lambs must not be allowed to suffer. In cases of twins, the ewes can be put on generous diet, and so far as artificial food is concerned, nothing beats a mixture of peas in small quantities, corn, malt dust, malt, good linseed cake, crushed oats, dried grains, and bran; or, to save trouble, a prepared lamb food which meets every requirement. A lamb trough with a grain hopper above that keeps up automatically a constant supply as consumption proceeds, a protruding roof to keep rain out of the troughs, boarded sides extending from each end, and lamb creeps in front—the whole forming a small enclosure—are very useful; and, whether for feeding or showing purposes, they greatly aid the breeder in keeping the lambs in a thriving condition. It should be placed on four wheels, one at each angle, so as to be easily moved; and if the boarded sides have roof wings, so much the better, as the enclosure will then afford considerable shelter in rough weather.

If any of the permanent pastures are really fresh, I would recommend these for the first few days, because, should the seeds get bare and a change to old pastures become absolutely necessary, both lambs and ewes generally fall back, whereas by depasturing the old turf first and following with the seeds an improvement is rapidly seen, as the ewes milk better. A few swedes, cabbages or mangels, and good clover hay in racks, are of great assistance, and keep up the flow of milk so essential to the well being of the lambs. In case of the ewes with single lambs, it is advisable, if possible, to let the lambs run forward onto green rye, kale, cabbage, or even to young seeds, where the grain troughs can be placed. This is easily accomplished with lamb hurdles, and prevents the ewes getting too fat for breeding purposes. If it can be spared, a little good clover hay in racks may, however, be given them. As much change of pasture as possible is recommended, and if that they are taken to is not as good as that they have left, they should be assisted with an increased supply of roots or other succulent food. A change apparently for the worse generally proves better than no change at all.

#### Shelter

A circular enclosure of flake hurdles with a lamb hurdle open to the south affords capital protection for lambs from the cold north and east winds; so also do molasses barrels or other large barrels, with one end knocked out, placed about the field, and open to a warm quarter. These barrels can easily be turned daily against the wind, and lambs will make extensive use of them. Warmth to a young animal is equal to so much good food.

It is often the practise to burl the ewe—that is, cut away the wool on the inside thighs and around the tail and the wool around the udder—before sending the ewes to a distant field. It no doubt is right in theory, but practical men say it is wrong, for should cold east winds prevail, gargeted udders will be the result, with the loss of several ewes. Just take away any quite loose wool near the teats which may possibly get into the lamb's mouth, and so cause death by swallowing, but do not interfere with Nature's protection to the udder until warm weather is assured.

#### Dipping

As soon as practicable—say when the ewes are shorn and before they are weaned—all the lambs should be dipped; and to thoroughly eradicate ticks, the ewes should be dipped, also, but in their case the process should be repeated in autumn. The object of dipping is to destroy the parasites in the fleece, to kill off any young insects that may afterward hatch out, and to protect the sheep from subsequent attacks. Experience has taught us that sheep thrive much better when their skins are clean, and it has been clearly proved that a good dip increases the quantity and improves the quality of the wool. It is absolutely impossible for lambs infested with ticks or any other parasites to thrive properly, owing to the constant irritation set up.

In trying to get relief, lambs often nibble at the fleece and swallow small portions of wool, with fatal results.

#### Weaning

If not conducted with care and proper forethought, weaning will inevitably lead to a derangement of the system of the lambs. In some cases, at a very early period, the lambs are separated from their mothers, and at once placed on seeds, which are perhaps burnt up and totally unsuitable to the tender stomachs of the lambs. The sudden transition from the milk of the ewe to the dry summer food is beyond the power of the digestive organs. The new food is not properly assimilated, consequently general derangement of the stomach and system immediately follow, of which the small thread-like worms that are found in the lungs are the indication. This is attended with fever and loss of appetite; parasitic worms, too, are engendered in the vessels of the throat and lungs, and soon terminate the life of the animal. To prevent these evil results, the food supplied at weaning time should be of a highly nutritious quality and such as can be easily assimilated, and if the weather is hot and dry, a plentiful supply of clean water should be available.

The date of weaning depends on the particular breed of sheep and the locality, and the breeder must be guided by circumstances, but in all cases it is important to put the lambs when weaned on a good pasture, or amplify their food as suggested later on. Early weaning is in most cases to be recommended for the following reasons: Keep is usually scarce at this season, and this affords an opportunity of giving the lambs the best pastures and putting all the ewes into one field, instead of being all about the farm robbing the lambs. As a matter of fact, ewes after weaning should have a poor pasture. In some districts weaning is so late that aftermath clovers are available, but in the majority of cases this will not be so, and if cabbage, mustard or other green crops be at hand, so much the better, as the object is to minimize the loss of the milk as much as possible.

After weaning, a little grain should be given, but it must not be of a heating or too stimulating nature; probably nothing, for safety, surpasses extra good linseed cake with crushed oats and bran. The lambs must be divided according to sex, and should, as soon as vetches, common turnips and mustard can be had in succession, be put on the arable land, and pushed forward in a healthy, natural way, avoiding an undue proportion of artificial food. As the harvest is cleared, the young seeds afford a good change for the lambs, from which they should be removed at night to the arable land.

The experience of breeders during the last decade seems to point to keeping the lambs from the period of weaning right through the autumn on arable lands, eating a variety of green foods—turnips and young clovers—and not on old pastures, where, without doubt, the larvae are picked up. To carry this out the breeder must exercise a little forethought and arrange for a succession of tares, cabbage, kale, rape and other substantial foods. This can be easily done by planting so much winter tares and rye in the autumn, following up with spring tares. A large flock can be kept in this manner, and with care and systematic drenching losses can be reduced to a minimum.

#### Experiments

With the object of testing the relative merits of different combinations of concentrated foods for sheep an interesting experiment was carried out some time ago. For the purpose of this trial eighty lambs were divided into two lots, and placed on two equal areas of yellow turnips. One of the lots had good meadow hay "ad libitum" along with the turnips, and the others were given one half pound of concentrated foods along with the hay and turnips, the concentrated mixture consisting of two parts of linseed cake and one of grain. The object of the experiment was to determine whether or not it paid to give cake and grain to sheep when fed on turnips and hay. In the result it was found that the total gain in weight of the lot which got the roots and hay only at the end of seven weeks was five hundred pounds, or an increase of 1.8 pounds per head a week, while those which got the cake and grain showed a gain of six hundred and seventy pounds, or 2.4 pounds per head a week.

#### The Sire of the Flock

It happens sometimes that when the producer of mutton has experienced



## Live Stock and Dairy

depressed markets and vanishing profits he thinks he must begin to economize, and so buys inferior sires, with disastrous results to the future of his flock and his next year's returns, because, when mutton is plentiful the inferior article is lowered far more in proportion than that which can be classed A 1. The true breeder is the man who keeps steadily on through good or bad times, and realizes it is suicidal to his interest to introduce a scrub into his flock in the shape of a sire.

### Marketing

In drawing sheep, match them for size, and do not market unless they are really ripe, indicated by a firm, mellow touch, good dock and scrag. By selling only ripe sheep top prices are secured.

One pound of grain a day, or even less, when the fodder is good, will suffice before the lambing season. After that time more grain may be fed when the ewes are not on pasture. Oats are the standard grain food, but some of the other grains may be added. In the absence of field roots a little bran or oil cake improves the grain ration.

WM. H. UNDERWOOD.

### Horse Notes

NEVER put a rusty or feed-sour bit in a horse's mouth. Clean it, and warm it on a frosty morning unless you want a horse with a sore mouth.

When returning from a long, cold or wet drive, see that your horse is well blanketed in the stable, the stones taken



First Prize Lincoln Ewe, Illinois State Fair, 1908

Lastly, I would say introduce as many business methods as possible into your farming operations without troubling yourselves with a mass of details. Learn to be systematic and conduct your sheep farming on a sound business basis. Successful management must always be associated with order and system, and can not be carried on in a haphazard style.

W. R. GILBERT.

### Care of Ewes in Winter

WHEN ewes are first brought into winter quarters the change from green to dry feed should not be made too quickly. When they are entirely shut away from the fields, then succulent food in the form of corn silage will be helpful, but silage is not so good a food as field roots.

The breeding flock should have quarters separate from the shearlings and also from the rams. The food fed them is different, or should be to some extent. The flock nursing lambs should be separate from that portion which have not produced lambs. The latter do not require to be fed so heavily as the former.

When the winter is open, so that the pregnant ewes can have access to the fields, they should be given much liberty of range. Even though they are unable to get much food, such liberty of exercise will do them good. The lambs will be more vigorous when they come. To encourage them to take exercise in such instances, food can be scattered in a grove or other sheltered place some distance away from the sheep shed and the sheep be encouraged to go in search of food.

The shelter called for, except in the case of young lambs, does not need to consider temperatures, unless it be temperatures that are too warm. But it should provide protection against winds, drafts and falling storms. They may be allowed also to lie in the yards day or night if they prefer to when these are well bedded. The housing of sheep in closed and ill-ventilated sheds is fatal.

The best fodders for sheep in winter are the clovers, alfalfa and peas or vetches cut a little underripe and cured without exposure to rain. These are all the more relished, of course, when of fine growth. This is one of the recommendations of alsike clover as a food for sheep. Along with one or more of the above, fine-grown corn fodder or sorghum or even bright oat or barley straw or millet will be very suitable. Sheep love a change of food and variety in the same.

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## Live Stock and Dairy

### Handling the Pig Crop

THE care and management of spring litters is an important factor in determining the year's profits. When we lose these early litters we lose the profit on the year's business, for we cannot replace them during the same season; hence it is very essential that we take every possible precaution to save the spring-pig crop. If we have plenty of skim milk it is an easy matter to get them well started and avoid many of the troubles to which young pigs are heir.

My experience in handling brood sows teaches me that the easiest method of making sure of saving these spring litters is to begin by feeding the brood sow a proper diet for four or five months before the pigs are farrowed. The brood sows should have just as good care and kind treatment as the best dairy cow we have on our farm, and she will pay just as profitable returns as any cow that we have in the herd if she is properly managed and given a ration adapted to her needs.

Too many farmers are breeding pigs on but one principle, and that is luck. When the sows save a fair proportion of their litters, that is good luck. When they lose a large proportion of their pigs through exposure and bad management, he calls it bad luck. To be successful with feeding and breeding hogs we must first learn that there is no such thing as luck connected with profitable swine husbandry. It is a knowledge and understanding of the fundamental principles of the business and carrying out these principles in detail.

### Feeding the Pregnant Sow

Sows that are pregnant should be fed some form of warm slop that is composed of good, wholesome muscle and bone building foods, such as wheat middlings, ground oats, oil meal, roots and clover. The man who gives his sows good, dry sleeping places and feeds along the above lines is invariably the man who always has good luck in saving these early litters.

Sows that are fed on corn and other highly concentrated rations during the time they are pregnant are quite certain to have more or less difficulty at farrowing time, and we need not wonder if they run after their pigs and chase them up in one corner of their pens, or even turn upon them and devour them.

It is only by feeding the brood sows under the right conditions that such troubles can be avoided. The sow that has a caked udder that is the result of being fed a heat-producing ration suffers severe pain and cannot be blamed for being restless and not lying still for the little pigs to suck. How much better to have our sows trained so that we could go in with them and bathe their udders with warm water when they are sore and fevered.

### The Sow at Farrowing Time

We find that nothing pays us better than to be on friendly terms with our brood sows at farrowing time, and for that reason it is best to remove them to their farrowing pen at least two weeks before they are due to farrow. This gives the feeder or herdsman time to get acquainted with the sows, and they have a chance to get accustomed to their new quarters and quieted down before farrowing time arrives.

The most severe losses in a herd of swine come at farrowing time, and a large proportion of these losses are unnecessary if the sows have good farrowing houses and judgment is used in caring for them during this most critical period. Many pigs are lost by accident at the time the sow is farrowing—some by feeding the sow too much soon after farrowing, and others from damp, filthy nests and sudden changes in the weather. When a man is on friendly terms with his brood sows it will pay him to be with them at farrowing time, and take the young pigs as fast as they come and place them in a nest or basket away from the sow until she has completed the farrowing act, and then place them with her and see that each pig finds a teat and gets a good start in life before leaving. I believe that an average of two pigs to a litter can be saved by taking these precautions.

Many hog growers seem to think it a piece of overrefinement to care for the brood sows in this manner, but let me say that it is this extra care and labor that mean profit, whether caring for hogs or any other kind of live stock, and whenever we find a successful stockman we are quite certain to find a man who is a careful feeder and one

who is making a constant study of the individual needs of each animal that is under his care. All this does not mean that we should pamper and overfeed our hogs, but simply give them the kinds of food and care that their artificial environment demands.

For the first twenty-four hours after farrowing feed the sow nothing except wheat bran and warm water. After the second day wheat middlings may be added to the ration, and gradually increased until the pigs are able to take all of the milk that the sow is capable of producing. Make some kind of creeps, so the little fellows can get out and exercise, and when they are three weeks old encourage them, to eat a thin slop made from skim milk and middlings and to eat a little shelled corn. This promotes their growth and lessens the demands upon the old sow.

### The Care of Young Pigs

In some instances when the brood sows are rather along in years it will be judicious to take the young pigs and remove their tusks as soon as they come. The pigs from older sows are more apt to have sharp tusks than those from younger sows. These tusks are very sharp and painful to the sow, and in many instances cause her to jump up and become excited when the pigs are sucking.

One of the most difficult problems that confronts the hog grower is to find a way to prevent scours and indigestion. I believe that this complaint comes largely from unsanitary conditions of the pen and the nests, and for that reason it will prove an excellent plan to sprinkle the nests and floors of the pens with lime and spray the inside of the houses with a mixture of one part crude carbolic acid and fifty parts crude oil. There are numerous commercial disinfectants on the market, but this mixture is very cheap and effective.

### The Best Feeds

We prefer wheat middlings as a grain food for our sows, although other feeds should be fed in connection with it. Bran, ground oats, corn in limited quantities and tankage are all good feeds and will bring results when properly proportioned. The feeder must use his own judgment as to the condition of the sow and the pigs. No man can tell just how much care and attention a sow and her pigs will require. Constant attention alone will decide the question.

Good care and rational feeding of the pigs during this critical time has a marked influence on them that can be noticed until they are full grown, and I have noticed that the greatest mistake that is being made in growing and feeding hogs is in neglecting to properly care for the brood sow and her litter during the time she is nursing them.

Start the pigs right and push them every day from birth to maturity on a well-balanced ration and they will make a rapid and uniform growth. A uniform lot of pigs look better, feed better and will sell better on any market in the country.

The man who gives proper attention to the care of the brood sow and her litters and gets the young pigs started right has solved one of the great problems connected with successful pork production. The men who have made the greatest success as breeders of pure-bred swine have attained success by attending to all of the details of the business, and if it has proven profitable for them to attend to the small things connected with their business, why not for the man who is growing market hogs?

W. MILTON KELLY.

### Dairygraphs

If a cow of any breed is not doing her best as a dairy cow it is best to change her feed and care as to bring her up to her best; but when we get that cow to her best, there is no known method of feeding or care that will make her do any better. But breed that cow so as to make her calf a better dairy animal than the cow herself, and then the same food and the same care which the dam receives will give better results in her offspring.

The dainty eater, the cow that is afraid to eat expensive food, is not the kind of cow for the dairyman, because his profits must come from the feed that the cow eats, not what she does not eat. The food consumed over and above what is needed for maintenance is what produces results for the owner. A good cow ought to utilize three or four times as much food as she needs to keep herself in good working condition. The good cow is a hard worker. W. H. U.

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# Poultry Raising

## Handling the Incubator

WHEN an incubator is bought, received and unpacked, then the next step is to locate it. Choose a place in the room (if an incubator house is unavailable) that is free from drafts or sudden gusts of wind, which may blow the lamp out or start it smoking. The direct rays of the sunlight should not fall on the machine for any length of time, and yet the room must be reasonably well lighted and ventilated. I have found that much depends on proper ventilation, as the unhatched chicks require air in order to develop properly.

Be sure that the lamp burns with a flame such as is desired in the dwelling, and never use anything but the very best of oil; also the wick should be of the very best, to insure an ideal light.

On first starting the incubator, if the lamp should smoke a little, don't be alarmed, but allow it to warm up and dry out.

On returning to the machine, after it has run a little while, you should find the damper raised; if so, and the temperature is not up to one hundred degrees, let it down, and so on until the machine registers one hundred and three degrees with an ordinary flame.

For the successful management of an incubator an accurate thermometer is very important. Take your thermometer to the druggist or some one else having correct thermometers, and have it tested for accuracy.

Almost all firms, however, endeavor to sell accurate thermometers, but this precaution may sometimes repay the trouble involved.

Now with a corrected thermometer and the machine regulated to the proper temperature, put the eggs in, being careful that they are moderately warm from having stood in a warm room for an hour at least.

Now you must be very careful to see that the temperature in the machine varies as little as possible. Here is where many beginners make a failure. They either become careless or get over-anxious, and have a batch of cooked chickens, or else let the temperature remain too low and the germ dies. Having the temperature nearly correct means having chicks that have strong vitality.

Test the eggs about the seventh day, and again about the twelfth day, to remove the infertile ones and those with dead germs.

After the second and until the eighteenth day the eggs should be cooled each day, and during the same period they should be turned twice a day.

After the eighteenth day, however, the machine should not be bothered until the hatch is over. Do not open the machine while the chicks are hatching. Often a neighbor will come in, and the temptation to show the chicks is great, but do not open the machine unless you want trouble with the young chickens. After the hatch is over the chicks can then be removed.

Running an incubator is just like everything else—it takes practise and experience—but the whole business is simple when it is once learned.

R. B. RUSHING.

## Ordering Eggs

A GREAT many people who send for eggs of pure-bred fowls for hatching purposes keep putting it off too long. Breeders of pure-bred fowls usually book the orders as they are received, and they are then filled in their turn. They cannot have a supply of eggs on hand and fill orders the same day they are received. They fill them as fast as the hens lay—no faster. So you see, if your order comes in late, it might have to wait for a considerable length of time for its turn, especially if the breeder is an extensive advertiser and gets many orders. Of course, you are then sure of getting fresh eggs, but you are sure of getting fresh eggs anyway. No breeder can afford to send you any other kind, and they don't do it. They would soon play out if they did. As a rule they will send you fresh eggs even if your order is number one. No eggs are stored away very far in advance to fill orders for eggs for hatching purposes.

The object in sending your order off as soon as the hatching season begins is to avoid the rush and to make sure that you will not be put off too late. The early hatched chicks always do better than the late chicks. They are not troubled with mites and other insects while they are small. Then, too, as a rule we are not rushed as much at this time of the season as we are later on, and

can give the chicks better attention. We cannot well afford to lose any chicks from high-priced eggs, so they will need to be closely watched and well cared for. The early chicks have many advantages over the later ones.

It is not necessary, when ordering eggs, to tell the breeder to pack the eggs well for shipment. It is to his interest as much as it is to yours that the eggs reach you safely and in good condition. Some breeders use box crates made purposely for this business. They are very handy and insure safe carriage. Others still use the baskets. Usually these baskets are well lined with soft hay or shavings. Then each egg gets a separate wrapping of cotton batting, and around that they get a wrapping of paper. They are then closely packed in the bed of hay. Each egg is placed with the small end downward, and they are packed so tightly that they cannot turn or shake. They are then covered with the hay or shavings and a cloth is tightly stitched over the top of the basket. Packed in this way, they can be safely shipped by express for even a great distance. They should, however, be taken from the depot as soon as they arrive, and should be carefully handled and protected from the cold.

When unpacking them, each egg should be carefully examined. A crack does not always spoil an egg. If the inside covering, or the thin skin just beneath the hard shell, is uninjured, the egg can be mended by gluing a piece of paper tightly over the crack with some good mucilage, and if the egg is not injured in some other way, it will hatch.

It is hard to say just how many eggs from a sitting will hatch. But six, seven or eight chicks from thirteen eggs can be considered a good hatch. A poor hatch is not always the result of the eggs having been shipped. Often the hen under which the eggs have been placed is the cause of it. Where high-priced eggs are bought it is well not to place more than six or seven eggs under a hen, thus dividing the eggs among more hens. Then if a hen does not sit well she will not spoil so many eggs as she would if she had the whole sitting.

GREGOR H. GLITZKE.

## For the New Man in the Poultry Yard

LOOK before you leap. Take time to make up your mind what you want to do, then go ahead and do it with all your might.

There are a number of good breeds of hens. Get around you the kind you like best. Some like black hens, some white, some buff. Be fully persuaded in your own mind. There is something in the different colors that appeal to men variously. It seems to be a fact that the kinds we like best are the ones we will do best with.

Plan for plenty of space. You cannot crowd hens profitably. Not more than twenty-five should be housed in a building fifteen by twenty feet. One of the most common mistakes with poultry keepers is that of overcrowding.

Have dark nest boxes. Hens like to creep away into the dark when they have anything particular to do.

Water is a prime essential. It must be pure, too, to get the best results. Hens will not drink filthy water unless they are absolutely obliged to.

Hens will eat most anything, good, bad or indifferent; and yet good, clean, pure food is best for them and they will make better use of it than they will of rations which are half spoiled.

It is a mistake to draw in great chunks of meat that have been for days infested with maggots for the hens to eat. You may give your fowls bad diseases that way.

Study your business. Talk with men of experience. Read reliable papers. Sell all eggs while they are fresh. Grow up with your business. E. L. VINCENT.

## Eggs in Winter

TO GET eggs in winter I feed scalded bran and milk in the morning, and wheat alternately with warmed or parched corn in the evenings.

On cold days I scatter grain in a pile of leaves or straw in the scratching shed and make them dig for it, or cut corn on the cob and make them shell it. I fix half a cabbage on a window-roller spring hung just out of reach, and make them jump for each bite. I have paid a dollar a barrel for cabbage just to feed to my hens. Boiled hog lights and butchers' scraps, chopped, also help.

CLIFFORD E. DAVIS.

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## Poultry Raising

### Producing Early Chickens

TO INSURE success in the chicken business it is imperative that the parent birds be comfortably housed and judiciously fed. Special care and feeding should begin a month before the eggs are wanted for incubation. Otherwise it may be very difficult to secure the amount of fertile eggs desired, in that when the days are short and the weather cold the sexual activity of both cock and hen is at its lowest ebb.

With proper mating the first clutch of eggs is generally the most fertile, unless the birds have been fed too highly or are overfat; in that event their surplus flesh should be worked off, whereupon the second clutch may be all right.

It is best to provide warm, light quarters in which the eggs are to be laid, and to determine their fertility when obtained, examine them by looking through them at a strong, bright flame, like that of a kerosene lamp. The germ of life showing as a dark speck can be seen through the shell in the broadest part of the egg; if it isn't discernible, the egg may almost invariably be regarded as infertile. What, then, should be done with it? Place it by itself for commercial and domestic purposes. They are just as good for cooking as the fertile ones; indeed, having no germ to be quickened into life by warmth, they are better for some purposes than fertile eggs. Hence the argument in favor of not having any roosters at all where hens are kept solely for egg production.

#### The Method for Small Breeders

The writer does not want it to be understood that he opposes or underestimates the value of the incubator for hatching chicks; but virtually, he considers their rearing by hens to be the most profitable method for small breeders of less than one hundred hens. Accordingly, when a hen has become a persistent sitter, she should be removed from her nest to a place by herself, and there entertained with a few china eggs until two or three hens have become well-established sitters, which is quite likely to occur in a good-sized flock; the eggs then can all be placed under them at the same time, and the chicks that are hatched cared for by one of them. Each hen should be given only as many as she can cover when they are well bunched under her.

Every morning at a regular time the hen should be pulled off her nest for feed, water and exercise, and at the end of ten or fifteen minutes, at the utmost, put back again and fastened in for the next twenty-four hours.

After the incubating has been under way for ten to twelve days, the heart in the chicken begins to send blood to the various organs in amounts sufficient to increase its warmth quite perceptibly, and if the egg then becomes entirely cold, it may be regarded as infertile or that the chick is dead. As any further heat applied to such eggs only sets loose the sulphur and hydrogen with which they are filled, making the very distinct and disgusting smell of rotten eggs, it is obvious that they should at once be removed from the nest. Everything, in fact, should be done to keep this as clean as possible, and that lice may have no chance to thrive, insect powder occasionally used.

#### Caring for the Little Chicks

Hens that enter upon their three weeks' period of confinement in good flesh and health should not be much the worse for it. Leave the newly hatched chicks with the hen in the nest for a while—if possible, until they are quite strong. Look to it, too, that there is no likelihood of their falling from it or getting out of the old hen's reach.

The chicks' first food may consist of equal parts of corn meal and wheat bran, moistened with milk or scalded with boiling water; indeed, this makes at all times and for all ages of growing chicks an excellent food. Give them all that they will eat of it four times a day until they do not care for it so often; three

times a day will then be sufficient. Whatever is left after each meal should be carefully removed. The oftener chickens can eat, the faster they will grow, so long as they have good appetites for each meal. They should also have access to dry, clean dirt and sand from the beginning, including grit. As soon as they can swallow whole wheat, a small quantity should be fed daily, and three times a week some table scraps, finely chopped raw cabbage, or boiled potatoes and skim milk, together with pure drinking water at all times.

No matter what their food is, it should be presented in narrow troughs, so that they cannot readily scratch it out nor get into it very much with their feet. These and all the vessels in which they are fed, as well as the coop or brooder, should be kept clean and sweet. Indeed, having warm, dry, immaculate quarters throughout is half of the battle in raising early chicks.

CHAS. A. UMOSSELLE.

### An Enemy to the Chicks

A FRIEND asks what to do for worms in chicks. To answer this intelligently one should know what kind of worms this friend finds in the birds, some of which die from the pest and none of which seems to be doing well. There are, first, the little round worms, from half an inch to four or five inches long. These are white. They cause diarrhea, stoppage of the bowels and serious weakness. The bird is thin and pale and stiff. A simple remedy is to put fifteen drops of turpentine in a pint of water and mix bran or corn meal up with it for feed. Repeat this several times. Another is to give a two-grain pill of santaline every other morning. Follow each dose by half a teaspoonful of castor oil. Get all fowls affected with worms out of the flock.

And then there are tape worms, which cause the bird to grow thin and weak without apparent cause. Six drops of male fern in a teaspoonful of sweet oil to each bird in the morning feed, followed by a feeding of mash with a teaspoonful of castor oil for each fowl, is a good medicine.

Not much attention has been paid to worms in hens, but they are no doubt the cause of much loss. Turkeys seem to be particularly subject to them.

E. L. VINCENT.

### Breaking Up a Sitting Hen

DURING the hatching season we usually find many hens that are willing to sit. Sometimes there are a great many more than we care to use for hatching, and as such hens are not very profitable while they are sitting without eggs, there comes the question of "breaking them up." It is sometimes a difficult matter to break up such hens, but when one knows how to get at it and is prepared it is not such a hard task after all. It is well, however, to be prepared in advance, so everything will be in readiness when the busy season comes.

Perhaps the best and easiest way to break up such a hen is to have a small coop made with a lath bottom. The laths at the bottom should be quite far apart, and the coop should be placed on blocks or stakes, so that the air can circulate freely below. Then when you have a hen that you want to break up, put her in this coop and don't feed her anything for about twenty-four hours. After that time, feed her a little of meat scraps and other food, and in about a week the hen will be ready to be turned out.

The air circulating through the open bottom of the coop keeps the hens cool and they have no chance to heat themselves, as they do while sitting in a nest. Being kept in this cool condition, they soon forget the desire for sitting.

GREGOR H. GLITZKE.

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## Farm Notes

### The National Poultry Show

ONE of the features that was brought out at the fourteenth annual exhibition of the National Fanciers and Breeders Association, held in Chicago from December 15th to 19th, was the tremendous interest of city poultry raisers and their success in producing stock capable of winning substantial prizes.

At the show three hundred and sixty exhibitors from twenty-one states in this country showed stock. Of this number one hundred and thirty-two were from Illinois, thirty-two being from territory within the city of Chicago. Wisconsin sent down twenty-six exhibits, and from Indiana there were twenty-three. One hundred and seventy-nine came from territory outside the states which have been named.

This shows that the poultry men in Chicago showed more stock than the entire state of Wisconsin or Indiana, although the exhibits of those two states came from a wide area in each state. Of course one reason for this is that the Chicago men were near the show and could afford to enter their stock, while the others would be at considerable expense.

However, the poultry business in suburban districts has been growing at a great rate, and the lists show that there is a very great variety of stock being raised. In recent years there has been a rapid progress in building up the outlying districts, homes have more ground, and in a great many instances the owners started in the chicken-raising business as soon as they took up their home "out in the country."

While a large proportion of the city raisers are keeping chickens for the profit they get, many of them have become pronounced fanciers whose sole desire is to breed up high-class fowls. This is evidenced from the fact that many of the chicken men are well to do and care nothing about any revenue that may come from their flocks. To them it is a fad and a sport and it seems to be growing in each and every division of the city.

Another thing that was brought out still stronger is that the women largely are keeping chickens and are producing some good stock. One of the female exhibitors at the show won ten fine premiums on ten birds, got a special prize for a pen, and was given the association trophy for the best display. There were several other women who showed fowls of different kinds, and their coops were liberally decorated with blue tags. It was noticed that a small crowd of women would stand at some particular cage and argue with each other for half an hour, and the most of them were able to score a bird as well as a competent man judge.

The fowl that claimed more attention at the show than perhaps any other was the White Orpington hen shown by a Kansas City breeder who has set upon her a value of ten thousand dollars. He claims to be holding the bird at this big price because he is said to have sold five of her chicks to one buyer for fifteen hundred dollars each. This hen was not shown in competition for any prize, but she and a number of her progeny occupied a large booth, and they were surrounded all the time. White fowls still are very attractive to most people, although a well-posted woman says that the whites gradually are losing to the other colors. Buff and Black Orpingtons, for instance, are making substantial gains.

The fanciers are known to have put forth an immense amount of effort in producing what they consider the finest colors. The golden-buff hue of the Wyandottes has occasioned an immense amount of work, and the green hue of the Black Minorcas was brought out at this show clearer than at any of the others. So has the plumage of the Partridge Plymouth Rocks shown some striking improvements.

J. L. GRAFF.

### For the Producer

The demand for canned products is now growing rapidly. The pure-food laws already enacted are exerting a salutary influence. The cans as now made are acid proof, so that there is no danger in the free use of the contents.

The fact is beginning to be recognized that it is as important that the producers of farm products in America should know the prices in all countries, equally as much as those in our own leading home markets. It will now pay to keep posted on prices the world over.

### Farm-Machinery Notes

Don't let the machinery cry for oil. O'Brien says: "Oil is the cheapest machinery we have."

The manure spreader is not a passing fad. It is a labor saver and has come to stay.

It is estimated that it costs the farmer more to haul a bushel of grain than it does a railroad to haul a ton of it.

Be sure to drain all water from the steam or gasoline engine as soon as you are through with it. New cylinders and pipes are expensive, and Jack Frost was never known to do them any good.

If you raise grain, why not own a fanning mill? It will pay for itself in one season. There is always some grain that needs cleaning or grading before it is ready for the market or for seeding purposes, and the fanning mill is the machine that will put it in condition.

It is a wise plan to look over the farm machinery some spare day this winter to see what repairs are needed; then order them at once and put them on the machines needing them. If this is done there will be no "rush" repair orders.

The gasoline engine requires about one pint of gasoline for each horse power per hour, or one gallon for each horse power for eight hours' running. Thus, a two-horse-power engine will use about two gallons in eight hours. Figuring gasoline at fifteen cents a gallon, this engine could be run eight hours for thirty cents' worth of gasoline.

Remember that the farm-machinery manufacturer made the following statement: "If the farmer cared for his machinery as he should, there would be a need for us to manufacture but one machine where we are now putting out two."

Better house this machinery this winter; clean and oil and keep it in repair, and don't let the above statement apply to you.

The question is often asked, "Which is the best make of machine for this purpose?" The answer to this is, select one of a standard make that is known to be good, even if it costs a little more than something you cannot be sure about. Select the machine for which you can secure repairs in a short time. It is usually best to buy from your local implement dealer. He should be able to furnish the necessary repairs and will see to it that the machine works satisfactorily.—H. M. Bainer in Colorado Agricultural College News Notes.



# Great Fences

## AMERICAN FENCE

Made of wire that is all life and strength—wire that stretches true and tight and yields just enough under impact to give back every jolt and jam it receives.

Made of materials selected and tested in all the stages from our own mines, through our own blast furnaces and rolling and wire mills, to the finished product. Our employment of specially adapted metals is of great importance in fence wire; a wire that must be hard yet not brittle; stiff and springy yet flexible enough for splicing—best and most durable fence material on earth.

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These are combined in the American and Ellwood fences—the product of the greatest mines, steel producing plants and wire mills in the world. And with these good facilities and the old and skilled employes back of them, we maintain the highest standard of excellence possible for human skill and ingenuity to produce.

Dealers everywhere, carrying styles adapted to every purpose. See them.

**American Steel & Wire Co.**  
Chicago  
New York  
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San Francisco

## ELLWOOD FENCE



# How many cows can you keep?



Are you keeping the most possible? Would it not be possible for you to keep more cows on your present land if you adopted improved methods of dairying? If you will investigate the

## I. H. C. CREAM HARVESTER

you will almost certainly find that you can increase your dairy herd, making greater profits with even less labor and less expense than you require under present conditions. I. H. C. Cream Harvesters are enabling hundreds of dairymen to enlarge their operations. They get all the butter fat, skimming closer than you can by hand. They save work, worry, time and trouble.

They give you the warm skim milk, fresh and sweet, as a nourishing food for your calves, pigs and chickens. It requires only the addition of a little oil meal to take the place of the butter fat extracted to make it an excellent feed.

I. H. C. Cream Harvesters are made in two styles: Dairymaid and Bluebell. Either machine will be a great help to you—will enable you to keep the maximum number of cows.

### Dairymaid

This machine is chain driven and is made in four sizes: 350, 450, 650 and 850 pounds capacity per hour. The

### Bluebell

The Bluebell is a gear drive machine and made in four sizes: 350, 450, 650 and 850 pounds capacity per hour. The gears are accurately cut from the finest material procurable. A-1 oiling facilities are provided, making the machine long-lived. The frame is constructed so that it is absolutely impossible for milk or dust to gain access to the gears—this eliminates about 90 per cent of ordinary separator troubles. Yet the gears are easily accessible. The supply can and crank shaft are in the most convenient locations.

Call on the International local agent and examine the machine he handles. If you prefer, write direct to the home office for a beautiful illustrated catalog fully describing these machines.

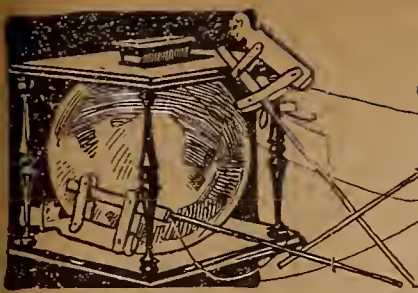
## International Harvester Company of America, Chicago, U. S. A.

(Incorporated)









# Politics

By Alfred Henry Lewis



ONE OF THE BEST THINGS about my writings is that no one is compelled to read them. And between us and in strictest confidence I know of no reason why any one ought to read them. When I examine my own breast for motives I find that the underlying argument—avoiding ones of a daily “corned beef and cabbage” sort—of my effort is composite in equal parts of truculence and conceit. Given something or somebody that is publicly wrong, I don’t purpose lying under the inference that I’m so thick witted I don’t realize the fact, or realizing it, I’m too profoundly a coward to give the fact condemnatory advertisement. Having cleared my conceited skirts on these two propositions, both personal, both vain-glorious, I find that my “honest indignation” most measurably subsides.

The truth is, I was born kicking; the world isn’t good enough. Not that I trace in myself any mad hope of making it better. Not that I’m even prepared to say that, bad as it is, it isn’t as good as myself. No, I’m no model of the virtues. And yet I do not repine. Even Sin itself is not without defense, and that some of us may be angels, some of us must be something else.

By the way, have you not noticed that, whenever you find an angel on this wallowing earth of ours, you also find some sooty son of evil—sinful yet loyal—working double turn to support her? This is a thought I often lay before my wife.

Let us get to what I’ve on my restless mind. The bosses have got in between the voter and his duty, the people and their rights—the common people, of whom the dead Lincoln once said that “God must love them, He made so many of them.”

Governor Hughes of New York, so far as the Empire State is involved, is striving to cure this evil condition by urging a measure arranging for Direct Nominations. In this he is setting an example to every boss-ridden state in the Union. Also, the New York bosses, whose vicious name is legion, are fighting him for every foot he presses forward.

GOVERNOR HUGHES WILL HAVE his New York way. He ought to. What saith the chancery maxim? “What ought to be, is.”

Besides, what has gone elsewhere should go in New York. People are much of a likeness. The racial herd is morally, mentally, so closely bunched, no one far ahead, no one far behind, that I might almost promise to cover humanity with a horse blanket.

And the practise, as well as the principle, of Direct Nominations is forcing itself forward. The direct primary is spreading through South and West. Wherever the direct primary goes, the boss disappears. The party convention and its dummy delegates are the boss’ life. Destroy them and the boss dies.

Under present conditions the boss rules politics and Money rules the boss. Nor does your modern expression of reform under the present system promise least relief. You are led forth by one boss to the overthrow of another boss. You revolt against the crushing oppressions of King Log, and are given King Stork who gobbles you up.

You elect your legislatures, but you do not select your legislatures. They are selected by conventions ruled by bosses ruled by Money. These legislatures elect your senators. And the legislatures—because of a source—are ruled by bosses ruled by Money. These senators pass upon your federal judges. And in so passing—because of a source—they are ruled by bosses ruled by Money.

Now and then Money fails, the boss is powerless; just as now and then the cogged die falls awry and the crooked gambler loses. The chance, however, isn’t one in ten. Taken generally, money rules the boss, and the boss rules the roast—political—though the roast be turning and twirling on a judicial or a legislative spit. The public hasn’t a legislature, hasn’t a congress, hasn’t a bench. At best it has but a third. The other two thirds of bench, congress and legislature are owned and ruled by bosses ruled by Money.

High office doesn’t change the man. Though he be your president, still is he blood and bone the same as when he acted as police commissioner, or practised law in a country town, or performed as sheriff of a county. So, too, of judges, of senators, of representatives, of state legislators. Also, from high to low, “The ox knoweth his owner and the ass his master’s crib.”

There comes a Tory voice, Money frightened to a gasping whisper, “Speak no ill of judges!” How well he of the gasping whisper would fit into the slate-hued, timid-tinted life of a Hindu village, with its sacred cobra, to which, no matter how it might fang

If you don’t agree with Mr. Lewis, “talk back” to him, confining your reply to two hundred words. We shall hope to publish some of these replies from time to time.—THE EDITOR.

and envenom him, nothing more stingingly retributive must be administered than a saucer of warm milk. Let him of the frightened voice read Thomas Jefferson where he speaks of judges, or Campbell’s “Lives of the Lord Chancellors.” Let him back track the bench to its inception. He will find few occasions when it was not fighting on the side of tyranny and Money against the honest rights of perishing flesh and blood.

We call ourselves free; but, like a school of herring in a seine, we are caught in not one, but the twenty seines of Money. Those seines are meshed and manned and cast and hauled by conventions ruled by bosses ruled by Money. Direct Nominations would break every convention seine, free every feeble herring of us all.

The bosses ruled by Money are against Direct Nominations. They are for the seine—the safe and seine. For years you have been wasting your vote. It is time you began saving and investing it where it will bring you in an income in the way of honest government. Wherefore cease to be a herring, be a man; and from your legislators, be they of the state or of the nation, demand Direct Nominations.

\* \* \*

IT HAS BEEN IN MY MIND or upon my conscience, or whatever you care to call it, that I’ve been heretofore unjust to Governor Hughes. I have that natural antipathy for the gentleman that fox terriers have for cats. And at that—cat and terrier—two people may dislike each other and both remain fairly decent citizens. I suppose it’s because Mr. Hughes is so inhumanly good. I never bought a gold brick yet that it didn’t come wrapped in a tract, and perhaps it is those experiences that frighten me.

Be it as it may, I’ve always—as they say on the plains—owned to “a notion” against Mr. Hughes, and more often than I ought have descended upon him, pencilwise, like a mink on a sitting hen. For one thing, his biographer never failed to paint him as hideously industrious. He was law clerk, studied law, taught law, and all at the same time. At this my dander rose.

Moreover, Mr. Hughes had fallen in love; and so full were his days with that clerkship, his nights with those lessons of law, he couldn’t find time to visit the lady of his heart. His biographers are inclined to boast of this, which also infuriates me. For I hold that a man should go to see the lady of his heart, though it actually resulted in his failing to learn to read and write. Man’s first duty is to fall in love; his second is to stay there. Yes, indeed, if that dread alternative were to befall, and life’s trail fork in such fashion as to present the bald question, The lady or the Education? no gentleman would hesitate. He would turn his back on the books and take the lady to church.

\* \* \*

IN THE OLD DAY, before Mr. Hughes went in for Direct Nominations and so set my conscience to smiting me, as I ran up and down the gentleman’s record, comparing word with deed, utterance with achievement, he was wont to break upon me as of that large, urbane, intensely respectable contingent that, while doing a deal that is right, do very little that is good. As I’ve explained, I’m afraid now I was wrong.

In figure, Mr. Hughes is slight, of medium height, with a pale face and a blue eye. His head is shapely, well balanced. Also he has beard and hair enough to furnish lairs for twenty flying squirrels.

His atmosphere is cold. There are no fire-swept sympathies. He is not a big man, not a great man, and no stress of circumstances will ever make him one. He will not rise to a great situation; he must be lifted up. None the less, he is honest; and he has manhood, I begin to think, sufficient to defy and fight a boss.

\* \* \*

IT WAS IN GLEN FALLS that Mr. Hughes was born—Glen Falls, in the state of New York. This event took place about forty-eight years ago. His father was a Welshman. The maternal strain was a happy blend of Irish, English, Scotch and Dutch. Mr. Hughes’ father was a Baptist clergyman. I should say, too, that he looked into the future as into a gloom-filled gulf—for in an early hour he exacted a promise from our hero not to read a novel until he was twenty-one.

Good novels are to man’s nature what dews and showers are to countrysides. Without them the minds of men turn arid, dry, desolate. They vegetate with ideas, but it is a desert vegetation of mesquit and cactus and soapweed and Spanish bayonet kind.

It is now said that Mr. Hughes cultivates Dumas, and knows as much about Athos, Porthos, D’Artagnan and Aramis as did the mothers that bore them. Last winter he was wont to repose himself from the worry of a recalcitrant legislature by reading and re-reading the fell doings of these worthies. This comforts me; for, albeit I cannot accept Dumas as a best author, I am relieved to know these things. There is something weird, fearsome, terrible about a man who doesn’t read novels, and reserves such literature, say as Euclid, for his lighter, relaxed moments.

The Hughes family was not rich. And yet, so far as shoes and clothes and food three times a day and a warm bed at night were involved, the childhood of Mr. Hughes was passed in Easy Street. At that I cannot think those childhood days hilarious. For one thing, boy Hughes was an infant phenomenon, and your infant phenomenon, while wonderful, is not obstreperously happy. I should say now that Mr. Hughes was a fashion of show boy, for he could read at three; and when his budding years had topped five, he of his own solemn and responsible motion fell upon his father with “a plan of study” wherein we are led to believe such as Herodotus and Homer were among the lighter authors. Now this sort of precocity in a baby of five is more apt to leave a bad taste in my mouth than anything else. I, who prefer boys to phenomenons and other monsters, should feel a deal easier if Mr. Hughes, on the occasion chronicled, had presented a plan—not to his father, but to some fellow urchin—for ripping a picket off a neighbor’s orchard fence.

Having arranged his plan of study, Mr. Hughes, *aetate* five, must have gone at the books with a gallant rush; for we learn that he so far overthrew common arithmetic as to trample vulgar fractions under his heel when in his seventh year, beating Herschel’s time and the Sir Isaac Newton record by respectively four and five years.

After the above, you will not be surprised to hear that as a child Mr. Hughes was sickly. He stayed much in the house, wore his shoes in the summer, did not go swimming against orders, pillaged no bird’s nest, fell out of no illicit cherry trees, played with no bad boys; all of which may have been either the reason or the result of that puny sickness adverted to. He grew up as a lad, thin, fragile, anemic, hothoused and handled, perhaps overhandled, by his careful parent, who kept his nose buried between the covers of an algebra or a geometry or the like, while protecting his young and straying tastes against such decadent literature as “Robinson Crusoe,” “St. Nicholas” and the “Youth’s Companion.” And so, slim, tall, not strong, silent, secret rather than self-reliant, Mr. Hughes grew from babyhood to boyhood, from boyhood into youth, as innocent of evil as any honeysuckle or any hill of corn. Then he entered Madison University; and later, pressing on through that seminary, he took the classical course and graduated at Brown’s College with highest honors, but lowest health.

\* \* \*

AND NOW, OH GRIM PROTECTIONIST, make ready the white-hot irons of your wrath! The other day in Washington I was in the Ways and Means room. Chairman Payne was sluggishly examining Mr. Gary concerning Steel.

The moment was a dull one. Half hearing, half seeing, my thoughts stepped backward sixteen centuries. I stood in Alexandria. I saw the temple-filling Serapis, pet deity of the Ptolomies, colossal, set with precious stones, fused of gold, silver, all the metals, helmet the bushel of plenty, the serpent of eternity coiled about, head in the deified palm—azure-tinted Serapis!

There were the priests demanding sacrifices and preaching that from Serapis came all of Alexandrian prosperity. Overthrow Serapis, and earth and sky would lapse into original chaos. Darkness would settle over Egypt; Alexandria would disappear.

Then came a mob of riotous Christians. Defying destruction, challenging pagan prophecy, they thrust aside the priests. Serapis was sent toppling. The earth held firm, the tented skies remained. Only a horde of rats—gray, rich, paunchy—rushed from the statue’s base.

And as I thought of Serapis—of the prosperity, of the evil prophecy should Serapis be overthrown, the iconoclastic Christians, the statue’s downfall, the out-rushing rats—I said to myself, “Serapis! Such is the protective tariff of the United States.”





# The Soul of Honour

By Lady Troubridge



## Synopsis of Previous Chapters

Marcus Quinten, impecunious and unworthy, but heir to the title and wealth of his cousin, and Jack Taunton, wealthy and honorable, fall in love with Lady Hyacinth Windermere. Her parents favor the former because of his prospects. They know nothing of the latter's immense wealth, and Quinten concealed the fact. The story opens at Ascot on Cup Day. A woman at the gate of the paddock accosts Quinten as her husband. He repulses her, saying the marriage was false, and leaves her. She faints, and is befriended by Jack Taunton. Taunton learns Honour Read's story, and how she was deserted on the wedding day, and he urges Quinten to marry her. He refuses point blank. Taunton is refused admittance to Hyacinth's home, but meets her at the home of her cousin. She loves him, but says she must follow her parents' wishes. Taunton, failing to persuade Honour Read to expose Quinten to Lady Hyacinth, secures a position for her with Quinten's cousin, who is a misogynist, and requires a secretary who will not intrude on him personally, and therefore sends all his instructions by his valet. Honour feels that this cannot continue, and writes a note to Lord Vannister requesting him to give her a short interview, so that she may discuss the work assigned her.

## CHAPTER IX.—CONTINUED

HER letter had been really prompted by a little outburst of angry pride; however, it was gone now beyond recall, and she could not but wait for the reply.

Apparently there was no further work that day, and it passed in a kind of dreamy restlessness as the first had done.

On the following morning she received another batch of letters and bills, and accompanying them was a note written in the same large and straggling handwriting to which she had become even more familiar. Somehow the very sight of this writing frightened her and affected her so much that she hurriedly hid it beneath the pile of other letters until she should be once more alone. Even then she hardly dared to open it, and turned to the correspondence, leaving the letter till the work should be done, in case it should upset her.

She noted that the instructions were much more explicit, and the work thereby was rendered lighter, while to the bills were attached checks in payment. Working, therefore, rapidly and easily, she quickly despatched her morning's budget and having returned the correspondence through the usual channel she put on her hat and hurried out.

Her rooms were situated in a wing which jutted out from the main building, as did a corresponding one on the opposite side of the house, and she had found out by this time a means of leaving the building by a side door, which prevented her from being obliged to pass through the hall. She reached this door at the end of the corridor in which her room was situated, and running down a shallow stone staircase found herself in a large winter garden giving onto the terrace. This place seemed to the London-bred girl an exquisite dream of beauty, a strange sweet place of rest, filled with the gorgeous colors of tropical lands, the murmuring sounds of great waters, the leafy greenness of haunted forests. In reality it was a pretty spot, cunningly arranged to convey, even on a cold and dreary day, the color and warmth and radiance of Southern lands. Low wicker chairs were scattered about, and in one of these Honour sank, close by the murmuring fountain which brought to her mind the fancies of great waterfalls she had read of. Rushing torrents of silver spray which girdled the mighty mountains, ending at the traveler's feet no more than a tiny trickle. The sound was enchantingly soothing, and here Honour determined that she would read her letter.

Drawing it from its envelope, she ran her eye over it with a beating heart, for it had come to her that in spite of all drawbacks it would be terrible to leave this enchanted resting place of peace and luxury. She was proud, but the first edge of her anger had worn off; she had begun to count the cost, and a dull fear overtook her as her eye read this page:

DEAR MISS READ:—

I regret that you find my instructions impossible to work from, and as I'm not prepared either to alter my whole way of life at your bidding, or to confide in you the reasons which have made me adopt it, there seems no alternative but to make other arrangements, which I shall do as speedily as possible.

VANNISTER.

The letter dropped into her lap and she covered her face with her hands and burst into tears.

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"Horrid, cruel man," she sobbed. "I hate him! I hate him!"

A low laugh at her side made her turn, and she saw, for the first time, that a man was standing watching her, leaning against the great palm which sheltered her low chair.

## CHAPTER X.

SHE raised her head with an angry jerk, and faced the intruder with her head thrown back, her eyes widely opened, and a look as startled and as hunted as that of the deer when confronted in the thicket by the hunter.

Her first thought was that some visitor, of whose presence in the house she had been unaware, had wandered to her hiding place, witnessed her tears, and now dared to make fun of her. Every nerve

seemed to him to be full of strange emerald lights.

"I beg your pardon, I'm sure," he said. "I did not mean to laugh, but when I heard your frank outburst against a man whom you had never seen, it struck me as so childish that I could not help it."

"You may think it very amusing," she said, icily, "to see a fellow creature suffering, but as I do not think it a matter for laughter at all, I will leave you; only"—here she hesitated, and came down a little from her high plane of disapproval—"I shall be much obliged if you will not mention this to your friend, Lord Vannister."

"You seem very sure that he is my friend," returned the stranger, and again at the risk of exciting her anger he smiled. "As a matter of fact, however,

Honour got up from her chair and prepared to sweep from the conservatory; yet as she did so her face was so blank as to almost pale before his eyes, and there was a note of stifled distress in her tone, like the note in the voice of a young child, and it seemed to the stranger that as she moved out of the tender shadow cast by the palm, her eyes, which had been so green looking, turned a grayish blue, as if their mystery had gone with the sunlight.

"I am glad that I have been the means of amusing you," she said. "But I'm sorry that I do not feel able to go on being the butt for your witticisms, so pray excuse me."

As she spoke a clock somewhere in the distance chimed the hour, but there was no other sound at all except the trickling of the water in the fountain.

"Stay!" he said, and there was such a tone of command in his voice that involuntarily she paused. "Allow me to assure you that this meeting with you is as purely accidental on my part as on yours. I neither wished to see you nor intended to do so; for many reasons the prospect was as distasteful to me, as it is apparently to you." He paused, and as if he had forgotten her existence for an instant, he sighed—a sigh which had in it a hint both of pain and weariness. Then looking at her again he went on: "But since we have met, perhaps you would like to take advantage of that interview for which you begged me in the letter, the answer to which I found you reading just now."

Honour was at the door, but she slowly turned and came back to him of her own accord, while her eyes were veiled with embarrassment, and her head drooped. The whole situation had come over her in an instant.

"You are Lord Vannister," she said aloud, and to herself she thought despairingly, "This is the end." A strange chance had been granted to her, unlooked for, unexpected—a chance to put herself right and to keep the position which she now realized too late to be the only thing standing between her and starvation; and with her own hands she had thrown it away. The extreme discomfort of this thought robbed her of all power of expression, and she stood wordless before this strange man who was master of her fate, trying to brace herself up to hide some of the humiliation which he had showered upon her, both in the mystery he had made about himself, and in the revelation of his identity.

"Yes, I am Lord Vannister, at your service, and I'm delighted to find that there is some one in the world who has the courage to say openly that she hates me; for then you see we can cry quits, for I, too, Miss Read, am so unfortunate as to have reaped nothing from life but a detestation of my fellow mortals, and I'm grateful for one thing only, that Fate has given me sufficient power of living my life as I choose to enable me to see as little of them as is humanly possible. The trouble, as a rule, is that I cannot prevent them from taking some interest in me, and from wishing to brighten up my solitude. Now, perhaps, you will understand why it was I indulged in the dream that I might possibly find a secretary who would take such an interest in her own work, and her own life, as to refrain from trying to enter mine. But there, I'm in a black mood to-day, so perhaps we had better not discuss this any more, or you, looking at me from the conventional standpoint of life, will certainly think me mad."

Honour did not stir as he made this long speech. She merely raised her eyes and looked him through and through. Her whole expression had changed; she had lost sight of herself in seeing, for an instant, through his eyes, the arid desert of a life which, if he meant what he said, must be more chill and lonely even than her own. A curious emotion filled her, a kind of subtle response to the despair which his harsh words hid, as the green water lilies and leaves on the lake outside hid the cold mysterious depths of the water beneath.

"They told me you were mad," she said, "but I didn't believe it, and I don't believe it now; only—I think you must be very unhappy to talk like this, and therefore I beg you to forgive me for what I said. It was too bad of me. Of course, if I do not suit you, you had the right to tell me so; only you see it meant



"A strange chance had been granted to her, unlooked for, unexpected—a chance to put herself right and to keep the position which she now realized too late to be the one thing standing between her and starvation; and with her own hands she had thrown it away"

in her body quivered, and her face turned pale with anger at the impertinence of any one daring not only to witness her tears, but to make game of them.

The man in front of her seemed completely unmoved by the flashing storm signals which she hoisted in scarlet cheeks and sparkling eyes, and gradually those eyes of hers were drawn to meet his and rested there as if startled and impressed in spite of herself.

He was tall, well over six feet, and had been cast in a large and powerful mold; but he was thin almost to emaciation, and his clothes hung on him loosely, while his attitude, as he leaned against the palm, was expressive of languor amounting almost to weariness, and as the laugh which her words provoked died away on his lips, they settled into lines of weary cynicism. As to his age, she could only make a hasty guess at it, which told her that it might be anything between thirty and fifty. His face was pale, with clear, finely molded features, and deep-set cavernous eyes, and the fact that he was clean shaven revealed the deep lines of habitual suffering around his mouth. Clearly he was not a man that even Honour, with her independent spirit, dared to look upon and to treat with open contempt, but she was still so angry as to be almost incapable of controlling herself.

"Allow me to tell you," she said, "whoever you may be, that I think you have no right to come in here spying upon me and laughing at me like this."

Her voice was low and concentrated, and her eyes, half closed and gleaming,

you may be as much mistaken in that conclusion as in others which you seem to be drawing. To tell you the truth, I hate the fellow. There is no man on earth whose company bores me so intensely."

"Then allow me to say," said Honour, crushingly, "that in my opinion, with those feelings toward him, you have no right to stay in his house."

By this time she was conscious of a certain interest which thrilled her in this extraordinary conversation with a total stranger—a disapproving, irritated interest, but one which, all the same, existed. She also felt the impossibility of withering him with the kind of speeches which, when she chose to make them, had always reduced the people around her to a certain kind of submission. In this case, however, they seemed unable to do more than divert, although at her last speech a slight gravity darkened his face, and his lips fell into more rigid lines.

"Do you always go through the world teaching people their duty in this manner?" he asked, sarcastically. "Because, if so, you are, I think, thrown away as a secretary. You should have been an instructor of youth."

Honour looked up startled, and her face was puzzled.

"How do you know I'm a secretary?" she demanded, feeling in some way that her speech was stupid and tactless, and that it was likely to bring her nothing but humiliation.

"Oh, I don't know," he answered. "I must have seen it in the 'Morning Post.'"



nothing to you, and it meant such a great deal to me."

No trace of her waywardness remained as she spoke; her voice was sweet, gentle, and womanly, but Vannister looked moodily on the ground as he answered her:

"Why does it mean so much to you, if you are forced to go?" he said.

"Because I am very poor, and there are reasons why I may find it difficult to get another position."

"Am I to understand, then, that you wish to reconsider your decision?" he asked. "And that you will accept my terms—the only terms on which you can remain—and that you will be willing to live in my house, and to work for me without in any way obtruding your personality on me?"

He spoke harshly and abruptly, emphasizing the last words almost vindictively, and they were to the lonely girl's heart like a cruel stab of pain; but she saw that, somehow or other, another chance had been given to her, and her pride struggled desperately with her dire need of work and independence. And in the effort her fortitude gave way; in spite of the buoyancy of youth this conversation of theirs had affected her nervous, excitable system until it had seemed to crush and quench the very upspringing of hope within her. She felt daunted, mastered and overruled in a way that was all the more remarkable because subjection was no part of her nature. And she had a strange feeling also that in spite of her troubles she had, as yet, only touched the outer rim of life, and that much that was incomprehensible and even terrifying lay before her.

She looked up at him, struggled to answer, and burst into a storm of sobs and tears, which shook her slender frame and convulsed her face, so that she turned away and hid it with her hands, finding momentary relief and peace in this blotting out of herself for a moment.

Lord Vannister left her completely alone until the tide of excitement and nervous misery had swept past her, and he saw that she was brushing away the tears from her eyes, though still too ashamed to turn toward him; and it was then she found herself gently touched on the arm and led again to her seat under the palm tree, while Vannister himself stood, as he had stood before, in the shadow behind her.

"Oh, you women!" he said. "You are all alike; you must have everything your own way. Peace and silence, and all those wonderful things which sink into the heart in solitude are not enough for you. You must be praised, understood, deferred to; a touch of reality, a word of truth, unnerves you, and yet you can all talk glibly enough of hard work, roughing it, and making your own way in the world. Well, well, I suppose you cannot help it; I suppose one must not be too hard upon you, so I will try to show you that the ogre has some human feeling, after all."

It almost seemed to Honour as if he were talking on purpose to give her time to recover her self-control, and certainly she began to feel as if a strange peace was coming over her as she sat there listening to him and watching the flowers, with her thoughts vague and dreamy, as was this fair day with its crystal-clear air and its golden sunlight.

She sighed gaspingly like a child whose grief is past, yet who is still only half comforted, and he gazed down, as he spoke, at the paleness of her face, the violet shadow which the heavy lashes made upon her cheeks, and at the pitiful droop of her red lips.

"Come, what is it?" he said. "What is it you want? Less loneliness and more work? Well, you shall have both; my sister is coming in a day or two, and she will supply the feminine element, and we will have an interview every morning for fifteen minutes' duration—quite enough to upset a peaceful day for me, but I will submit to it. Now are you satisfied?"

Honour drew a long breath, and a little of the icy block of fear and anguish seemed to roll away from her heart.

"You are very kind," she murmured, trembling. "But—but—there is something I must tell you—something which you ought to know before I take advantage of your offer."

Her thoughts were crystallizing and forming themselves into words which were coherent, and would make things plain to him, but it was indeed difficult to break this heavy silence and to speak of her inmost grief and trouble to this man who, although he had shown her a sudden unexpected touch of humanity, had yet told her in words as plain that her very presence was obnoxious to him; and it was a tale so sad, so fraught with tragedy, that it would have been difficult to tell even if whispered into the tender ear of a mother or sympathizing woman friend.

Every atom of color ebbed away from her cheeks as she nerved herself to the dreaded confidence. Then leaning for-

ward, with her eyes bent and her hands clasped together in her lap, she began:

"The engagement you offered me was only a temporary one, and therefore I thought that perhaps it would not be necessary to tell you a little of my own history, but since I gather that you may be going to allow me to stay on here, I must tell you about it, only it is very absurd of me, but somehow or other you have made me feel so frightened of you that I hardly know how to begin."

He looked down upon her through the parted leaves, and looking up into his from the shadow were a pair of eyes, in which honesty was writ large, and in which there was also something beseeching, something pleading which drew from him the first chivalrous word he had spoken to a woman for years, and which surprised him almost as much as it did Honour.

"Why should you tell me," he asked, "if it is something which gives you so much pain? Do not tell me. You are very young to have had any trouble, but since it has come to you, why not forget it? There are some troubles which live on in one's heart, and will live to the end of one's life, which cause nothing but hatred and passion and misery, and which make one loathe one's kind; which give one hideous, ghastly hours, obsessed with one thought, one bitterness. But you cannot have had anything of this kind in your life; in any case, I do not wish to hear your trouble. Let it be."

"No, no, I must tell you," implored Honour, for the very words in which he had described them, called up the various months under which she had lain paralyzed in the throes of an anguish just such as he had described. "I wish to tell you," she said again; "and it will be very good of you if you will listen for a moment."

"I will listen," he said, "for many moments; so take your time, for when we speak of things like this, we must tell the story in our own way."

"That is true," she answered. "How do you know?"

He had the faculty of making her speak unguardedly and then closing her lips with a rebuff, as he did now.

"Ah, that is another story," he said. "Mine. Go on, please, with your own."

And she rushed into a torrent of words, unthinking and unheeding of their nature, or of the effect they would make upon this man, her employer; only realizing that they had to be spoken.

"My father was a clergyman," she began. "He was so dear and good to me; quite the very best man that can ever, I think, have lived in the world. He brought us up as well as he could, and he always taught us that so long as we feared God and did what was right, nothing could happen to us. He made us feel that he trusted us, and that whether we were with him, or out in the world far away, he depended on us never to do anything which we should be afraid to tell him. We were very poor, but I won't bother you with all that, only in time it became necessary for me to work, and father let me go to London, and gave me sufficient money to make a start. I learned shorthand and typewriting, and I became very expert; I could take down over a hundred and fifty words a minute in shorthand, and it never seemed any trouble to me. I lived with a girl friend, and we were very happy in our own way. Then, one day, she took me to a party, at the house of a friend of hers, and I met a man—whose name, of course, I will not tell you. He was in quite a different sort of society to me, but he fell in love with me and asked me to be his wife; only he told me that he had expectations from some one of his relations, who would never consent to his marrying any one who was not in his own world; that, in fact, the inheriting of this money entirely depended on his making such a marriage as would please his family. So the end of it was, he begged me to marry him secretly, and to wait until he could find a favorable moment to tell them about it. For a long time I wouldn't, because I remembered what father had said so often to me; then, while I was wondering what to do, I heard of my father's illness, and I went down to him, only in time to be with him when he died, and when the debts were paid there was nothing left at all for my sister and me. She took a position in India as a governess, and started almost immediately after the funeral, and I was alone in the world."

Here she paused and looked up at him as if mutely seeking for some word, some touch of sympathy, such as he had shown her when he told her that she need not speak at all of the past, but although he was watching her with an intentness which, had she known the man better, was an amazing tribute to the interest of her halting tale, he spoke no word at all; and there was a gravity and an air of aloofness about his unmoved silence which gave her the feeling that she was a prisoner at the bar. Native courage made her continue, although

[CONTINUED ON PAGE 22]

## Making and Breaking Them

DO you make any "resolutions" when you hang up the new calendar this year? Yes? Well, then, how many remain intact to date? Be honest now! The list wouldn't make a very creditable showing, would it?

Most New-Year resolutions have by this time been fractured beyond hope of repair; and some have been plumb smashed to smithereens for the remainder of the twelvemonth.

The making and breaking of New-Year resolutions is a game we nearly all of us take a hand in, and most of us, with small credit to ourselves, become more or less proficient players. Whoever inaugurated this game started something that he should be called back from out the vasty deep to finish, and that before his shade is charged with another year's blame to answer for.

The making of New-Year resolutions is a pretty good thing—if you are resolute enough to keep them. But when you make them and afterward break them, then you break down not only your own self-respect and that of others for you, but each time you weaken your self-control, your ability for self-mastery and self-direction. Every resolution that you make and break strikes a disastrous blow at the very vitals of your moral stamina; makes it easier to break the next one.

When we make and break a resolution we humiliate ourselves in our own estimation as well as that of our friends; we have made for a detriment of our character, rather than a betterment.

The main trouble with the most of us is that under the spell of emotion created by the sentiment of the season, or the desire to appear before our friends as a reformer, we make New-Year resolutions that none but a self-sacrificing angel could keep.

But why should any one wait until the first of January to make their formal resolutions to "be good?" By the time that New-Year's Day comes around we have such a collection of undesirable things that we want to get out of our system, so many desirable things that we want to absorb, that the process of elimination and assimilation is beyond the capacity of our ability to accomplish. So, generally, in the end we do not succeed in doing any one thing well, but more often miserably fail in all of them.

But why delay until January 1st to inaugurate our personal reforms? Don't you know that every time the sun rises it ushers in the commencement of another year; that every day is the beginning of a new year to you? Start every day with good resolves, and a determination to carry them out.

Don't shelve your good resolutions and allow them to accumulate for a year. They're too apt to get moth eaten. At best you will find that by the end of the year they have dried up and lost their vitality.

"Every day is a fresh beginning; every day is the world made new," says an old writer.

Get in line with this conception of New-Year's Day; and keep step with it. Try to realize that it is infinitely better to say each morning, "I will do the best I can to make an improvement in my life to-day over that of yesterday," than to wait until New-Year's Day to say, "I do hereby solemnly swear and pledge myself to swear off on this or that."

If you will do that with purposeful sincerity you will find that at the end of the year you won't have much you will need to "swear off" on. Get on the right side of the line with the beginning of a new year to-morrow morning; and stay there!

## Red Cross Cats

EVERYBODY remembers the story of how Dick Whittington, "thrice Lord Mayor of London Town," laid the foundation of his fortune by selling his cat for her weight in gold to the king of the land who had no cats, but was blessed with a superabundance of mice. Now it appears that pussy's value is again to be recognized.

It was recently discovered that the bubonic plague—which has been identified with the terrible scourge that repeatedly swept through Europe as well as Asia in the Middle Ages—is spread mainly by rats and mice. Since Doctor Koch advised the keeping of cats as an efficient means of preventing the spread of the plague, the Japanese authorities have been taking a census of cats in the Flowery Kingdom and investigating their value in this regard.

The result of police investigation in Osaka, a city of 1,500,000 inhabitants, shows that 48,222 families keep a total of 54,389 cats, and that there are 5,696 cats without homes or visible means of support. It was also noted that in those parts of the city most liable to the plague no cats are found.

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# The Household



## Attractive Crochet Edgings

THE woman who is handy with the crochet needle and who has plenty of spare time will be glad to know about these attractive lace edgings, which are especially designed to take the place of the Valenciennes and Torchon laces. These hand-made laces are excellent substitutes for expensive ones and make very effective trimmings. These edgings are very simple to make and when once the work is started it goes along rapidly. A spool of thread will make several yards. Aside from making a pretty trimming, the laces will wear well, and stand frequent launderings. The samples here shown were made in coarse thread, in order to show the stitches, but the work looks better when done in fine thread—No. 70 to 100 or even finer, depending upon the material for which the lace is intended.

Use a very fine crochet hook, hold the thread rather tightly, and be careful to keep the stitches even.

The half-wheel and Valenciennes lace may be crocheted directly into a buttonhole stitch on the garment or made on a Battenberg or finishing braid.

Abbreviations used are: Ch, chain; s c, single crochet; d c, double crochet; sl st, slip stitch—that is, needle through work, thread over, draw needle back, slip last stitch on needle, over first stitch on needle.

### Half-Wheel Lace

First row—Make a chain somewhat longer than you want the finished lace. If finishing braid is used as shown, no chain is necessary, but consider the spaces between threads on the edge of the braid as chain stitches, tie thread in braid and begin second row.

Second row—Ch 3, fasten with sl st in third st of ch, \* ch 3, miss 1, fasten with sl st in next st of ch, ch 3, miss 2, fasten with sl st to next st of ch, ch 3, miss 2, fasten with sl st to next st of ch \*: repeat between \* to end.

Third row—[\* ch 2, d c in second loop of 3 ch \*, repeat four times, ch 2, fasten with sl st to stitch between third and fourth loop of 3 chain]; repeat between [ ] to end.

Fourth row—S c over edge of wheel, ch 2, \* s c in same space, s c in second space, chain 2 \*. Repeat to end.

### Valenciennes Lace Pattern

Chain or braid length of work required.

First row—Ch 8, form picot by fastening with sl st to third st of 8 ch, \* ch 5, picot in same place \*, repeat; ch 3, sl st to fourth st of first row, repeat entire to end of chain, ch 5, turn.

Second row—Sl st to last picot, ch 3, sl st to middle picot, ch 3, needle through last picot of first group of three picots, through the first picot of second group, sl st, fastening the two groups together. Repeat to end, turn.

Third row—\* 5 s c over ch between 2 picots \*, ch 3; repeat between stars, making the first scallop. Repeat to end.

### Clover Lace

Make a wheel of 3 ch. Ch 3, turn. First row—Fan in wheel of 3 d c, ch 2, 3 d c, ch 3, turn.

Second row—Fan in fan, ch 4, sl st to end of 3 ch at beginning, turn, 8 s c over 4 ch. to make first clover leaflet, ch 1.

Third row—Fan in fan, d c in last 3 ch at turning, ch 3, turn.

Fourth row—Fan in fan, ch 4, sl st in last st of third row, turn, 4 s c over 4 ch, ch 4, turn, sl st to middle of first leaflet, turn, cover last 4 ch with 8 s c, making third leaflet, 4 s c to finish second leaflet, ch 3.

Fifth row—Fan in fan, repeat from beginning.

### Beading

This will wear much longer than the cheap machine-made beadings and is less expensive. It is very easily and quickly made. If desired for wider or narrower ribbon, simply make the wheels of more or less than 14 ch.

Chain twice the length of beading required, turn. Form wheel of 14 ch. Ch 7, \* sl st to seventh stitch from wheel, ch 7 \*: repeat to end. Ch 6, turn.

Second row—3 d c in first wheel, ch 1, 3 d c in next wheel; repeat to end. Ch 3, sl st to end of last wheel, ch 3, turn work over.

Third row—Repeat second row on opposite side of wheels.

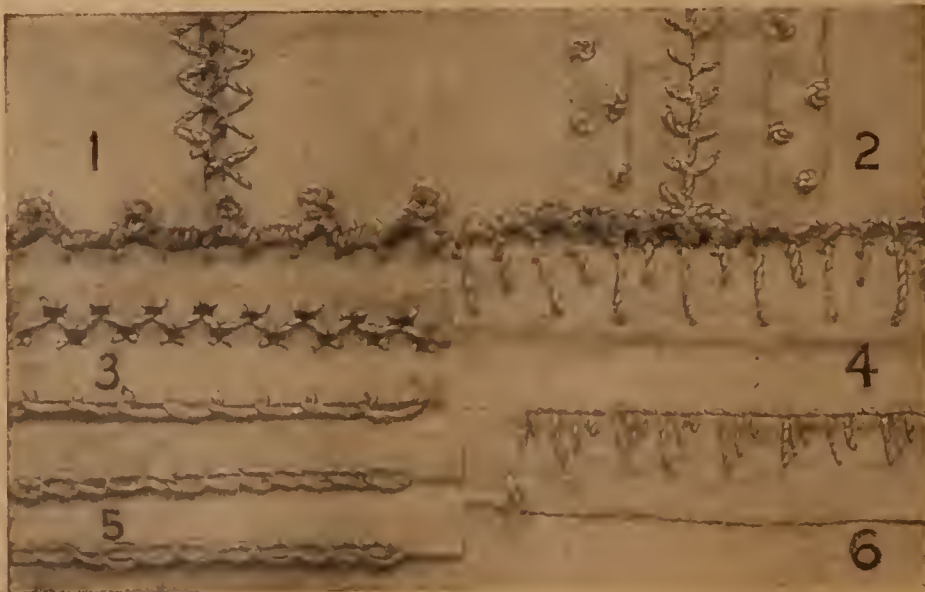
LULU G. PARKER.

## Easy Bread Making

HERE is an easy way to make bread: Save the water in which the potatoes are boiled at dinner time. When getting supper, make a sponge of the potato water and as much more as is required (two small cupfuls to a loaf).



In cold weather have the water lukewarm. Add the yeast, a small spoonful of salt and a large one of sugar. About nine o'clock mix it hard. In the morning knead it down to the pan. After breakfast divide it, and form into loaves, using lard instead of flour on the hands. If the directions as given are followed, the bread will always be light, white and sweet, keeps moist, and the crust is never hard.



A Group of Unusually Attractive and Simple Edgings and Joinings Worked in Silk Thread

## Good to Remember

If you have grown tired of lemon and vanilla flavoring, try mixing them. You will be pleasantly surprised at the change.

Fresh brown paper is the most satisfactory pie board. It can be thrown away when the pastry is made and does not have to be scrubbed until your arms are tired.

Make the batter for Yorkshire puddings, fritters or batter cakes several hours before it is wanted; the flour will have a chance to swell, and this will render the batter much lighter.

## Ornamental Edgings and Joinings

HAND work in some form seems an essential decoration for both outer and under garments if one would secure the approval of fashion's votaries, but this fact does not imply the use of large ornate patterns or showy colors. Simple effects in stitch work are just as commendable as in any other craft, and have the additional recommendation of bringing to the busy worker opportunities for ornamenting garments which would be out of the question if a large amount of time were involved. Some such designs are shown in the accompanying illustrations, any one of which may be used with propriety on shirt waists, baby clothes, children's dresses and aprons, or underwear. The edgings also provide dainty finishes for neckwear and handkerchiefs, with rolled or hemstitched edges.

In No. 1 two buttonhole stitches are placed with the ends slanting together at the edge. The thread is then carried diagonally across the space to the opposite edge, where two other stitches are made, thence across again, and so on. This makes a firm, durable joining if strong thread is used, and if care is exercised in placing the stitches the wrong side will look quite like the right.

No. 2 shows the use of French knots and vine stitch on alternate tucks. This vine stitch is similar to the familiar feather stitch, except that the central row of stitches is kept as straight as possible, and the outbranching ones are directly opposite rather than in alternation. The feather stitch would answer equally as well.

The center space between the outward turning tucks of No. 3 is worked with a row of herring boning, the ends of the stitches being afterward caught down by short stitches running directly across. These may differ in shade or color to those forming the herring bone. The edges of the tucks in this case are worked in loose buttonholing or blanket stitches. In the loops thus formed buttonhole stitches are placed close together, every other loop having a picot in the center. This is made by buttonholing first to the center of the loop, then buttonholing a chain of four or five stitches free from the loop, before proceeding to fill the loop.

Nos. 4 and 6 are composed of graduated buttonhole stitches, and are pretty edgings for hems, tucks or folds. No. 6 is in groups of three, each with tiny spaces between, the purled edge being kept snug against the hem's edge. No. 4 has a long stitch, followed by a very short one, which serves to hold the thread in place. A loose loop is then left, and a medium-length stitch placed one fourth of an inch beyond, followed by the short one and loop, as before. On the return, close-set buttonholes stitches are placed in each loop.

The common chain stitch is used to edge the tucks of No. 5. This gives opportunity to indulge in a bit of color without the undesirable glaring effect so often seen. Little touches of color are quite the thing just now for waists and neckwear. No more charming effect for the lover of simplicity could be attained than by a few hand-run tucks on an otherwise plain waist, each edged with a line of old blue or pink in this quaint manner.



# Miss Gould's Pattern Page



No. 1061—Wrapper With Round Yoke  
Sizes 32, 34, 36 and 38 inch bust measures.



No. 913—Baby's First Short Clothes Outfit (Including 6 Patterns). Price 20 cents.  
Patterns cut in three sizes—6 months, 1 year and 2 years. This pattern is not included in any premium offer.



No. 1142—Shirt Waist With Shoulder Plaits  
Sizes 34, 36, 38 and 40 inch bust measures.

No. 939—Thirteen-Gored Skirt  
Sizes 24, 26, 28 and 30 inch waist measures.



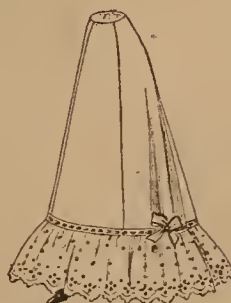
No. 1270—Jumper Apron

Pattern cut in one size only. Quantity of material required, two and one fourth yards of twenty-seven-inch material, with six and one half yards of beading and six and one half yards of velvet ribbon for trimming.



No. 1161—Child's Rompers  
Sizes 2, 4 and 6 years.

No. 1093—Seven-Gored Walking Skirt With Pockets  
Sizes 24, 26, 28 and 30 inch waist measures.  
Length of skirt, 40 inches all around.



No. 1140—Gored Petticoat With or Without Yoke  
Sizes 22, 24, 26, 28 and 30 inch waist measures.



Good materials to use for early spring dresses for children are cashmere, Henrietta and light-weight serge. A little later cotton poplin, rep, pique, mercerized madras and cotton voiles will be excellent materials for children's dresses.

The busy housewife is sure to appreciate the practical features of this housework apron. There are two big pointed patch pockets and one smaller pocket. One ten-cent pattern will give you the pattern for the apron and dust cap.



No. 1266—Housework Apron and Dust Cap  
Pattern of apron cut for 32, 36 and 40 inch bust measures—small, medium and large. Quantity of material required for the apron in medium size, or 36 inch bust, four and one half yards of twenty-seven-inch material. Quantity of material required for the cap, one half yard of twenty-seven-inch material.

No. 1066—Night Drawers With Plain or Full Sleeves  
Sizes 2, 4, 6 and 8 years.

No. 1271—Two-Piece School Apron

Pattern cut for 6, 8, 10 and 12 year sizes. Quantity of material required for medium size, or 8 years, three and one fourth yards of twenty-four-inch material, or two yards of thirty-six-inch material.

No. 1272—Plaited Dress With Princess Panel

Pattern cut for 8, 10, and 12 year sizes. Quantity of material required for medium size, six and one fourth yards of twenty-seven-inch material, with one half yard of contrasting material for the yoke.

## NEW CATALOGUE OF MADISON SQUARE PATTERNS

Our new Winter Catalogue cannot help but be invaluable to the woman who makes her own clothes. We will send it to your address for four cents in stamps. Order patterns and catalogue from the Pattern Department, FARM AND FIRESIDE, 11 East 24th Street, New York City.

Full descriptions and directions are sent with the pattern as to the number of yards of material required, the number and the names of the different pieces in the pattern, how to cut and fit and put the garment together, and also a picture of the garment as a model to go by.

### THE PRICE OF EACH PATTERN IS 10 CENTS

When ordering be sure to comply with the following directions: For ladies' waists, give bust measure in inches; for skirt pattern, give waist measure in inches; for misses and children, give age. To get bust and breast measures, put a tape measure all the way around the body, over the dress, close under the arms. Order patterns by their numbers. Satisfaction guaranteed or money refunded.

### OUR LATEST LIBERAL OFFER

We will give any two of these patterns for sending two yearly subscriptions to FARM AND FIRESIDE at the regular price of 35 cents each. Your own subscription may be one of the two. When ordering, write your name and address distinctly. We will send FARM AND FIRESIDE one year, new or renewal, and any one pattern, for only 40 cents.

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No. 1163—Kimono With Scalloped Yoke  
Sizes 32, 36 and 40 inch bust measures—small, medium and large.



No. 1224—Surplice Waist With Pointed Yoke  
Sizes 32, 34, 36 and 38 inch bust measures.

No. 1225—Sheath Skirt With Flounce  
Sizes 22, 24, 26 and 28 inch waist measures.



# Flower Offers

## Absolutely Without Cost to You

These beautiful flowers are the finest obtainable. And we guarantee that they

Will Bloom This Season of 1909



### The Five Prettiest Roses

(Order as No. 101)

Many of these roses when in bloom sell for \$4.00 to \$6.00 a dozen at florists'. You can get absolutely without cost all five of these rose plants—the Climbing Meteor, Bright Red, Hardy Yellow Rambler, Bright Pink, Pure White. See our liberal offers below.

### Five Fragrant Carnations

(Order as No. 109)

The carnation was President McKinley's favorite flower. Next to the rose it has become the favorite flower of all classes. The collection we offer you contains five different colors—One Rich Scarlet, One Deep Pink, One Light Pink, One White, One White Striped With Scarlet. See our liberal offers below.

### Four Elegant Ferns

(Order as No. 104)

Of all plants for pot or interior decorations, ferns occupy the place of favor. This collection consists of the leading varieties—Boston, Emerald, Fountain and Asparagus. See our liberal offers below.

### Six Magnificent Chrysanthemums

(Order as No. 102)

The chrysanthemum is the prettiest late autumn and winter flower. Small plants set out in the spring will have formed large plants full of blooming shoots by September. We will send in this collection six large-flowering Japanese varieties, as follows: One Pure White, One Deep Yellow, One Light Yellow, One Light Pink, One Deep Pink, One Beautiful Red. See our liberal offers below.

A Few of the Roses You Will Receive

## How to Get the Flowers

### With Your Own Subscription

1. Send us \$1.00 for Farm and Fireside four years (96 numbers) and any one collection of flowers postpaid.
2. Send us 50 cents for your own subscription one year, some friend's subscription for the rest of 1909, and any one collection of flowers to you, postpaid. (Get your friend to give you 25 cents for Farm and Fireside for the rest of 1909. Then your own subscription, including flowers, will cost you only 25 cents.)
3. Send us 40 cents for your own subscription one year and any one collection of flowers.

### For Obtaining Other Subscriptions

4. Any one collection of flowers will be given for only two subscriptions to Farm and Fireside at 25 cents each, to run the balance of the year 1909. One of these may be your own subscription.
5. Any two collections of flowers will be given for only three subscriptions to Farm and Fireside at 25 cents each, to run the balance of the year 1909. One of these may be your own subscription.
6. Any three collections of flowers will be given for only four subscriptions to Farm and Fireside at 25 cents each, to run the balance of the year 1909. One of these may be your own subscription.

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**Special!** With every subscription sent to FARM AND FIRESIDE in connection with any offer on this page, we will furnish without cost the "Home, Sweet Home" Calendar for 1909 if you ask for it.

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All plants will be large, healthy and well rooted, and will bloom the coming season. We guarantee them to be exactly as described, to arrive in perfect condition, and to give entire satisfaction or your money cheerfully refunded.

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### Cultural Directions

Collections must be ordered entire. Accompanying each lot of plants are full directions for planting, care, etc. Please state what month you prefer to have your plants sent to you.

SEND ALL ORDERS TO

**FARM AND FIRESIDE, Springfield, Ohio**

## The Soul of Honour

[CONTINUED FROM PAGE 19]

her voice shook, and the white hands in her lap trembled perceptibly.

"I met him again," she said, "and then he made me promise to do what he wished. He told me that he had arranged it all, and that we were to be married at a registrar's office, so as to avoid difficulties, and to obtain privacy. I didn't know much about those kind of things; I had never been into an office of that kind in my life, but of course I thought he knew all about it, and left it to him. He told me I was not even to tell the girl I was living with, as he said if a woman knew a secret it would not be a secret long."

"Hm-m," said Lord Vannister, as though in partial agreement with this statement; but Honour was by this time too engrossed in her own tale to cavil at his words or looks. She was gazing ahead, and in a slow toneless voice relating the plain facts; and somehow the absence of rhetoric or of emotion gave a truthfulness to the story, such as one feels when listening to the narrative of a child.

"He took me to the office, where there were two men, who asked me a few questions, and we both repeated certain words, after which we were married, and I went home with him to the lodgings he had taken. Just as we arrived his servant came around from the barracks with a batch of letters and telegrams for him."

"One moment," interrupted Lord Vannister, "You say this man was in the army?"

"He was," replied Honour; "but he has left."

"I see. Excuse the interruption—pray go on."

It was, however, becoming difficult for her to continue. She moved uneasily, breathed quickly, and then spoke more hurriedly.

"When he had read these letters, he turned around and told me that he must leave me at once, but that he would return that evening when his business was over. I think he was on escort duty, or something of that kind."

"A guardsman," thought her listener to himself, but Honour, unconscious of the slip, proceeded.

"He went away without many more words, and with only just one hurried kiss, and he never came back."

"Never came back," said Lord Vannister. "What do you mean?"

"What I say," she replied; "and if it seems strange to you, just think what it was to me. I waited and waited through all the half hours and the hours, watching for a word or a line, and then the next morning I received a long letter, which told me that he had suddenly been ordered on to the staff of some general, whose aide-de-camp had been seized with illness. He had been given only twelve hours to make his preparations, and he thought it best for both our sakes to leave without seeing me again. He said he could not bear the thought of my grief. He sent me some money and told me to remain where I was, and he left me also an address at which to write to him. I wrote every day, and at first he wrote, too; then I heard less and less from him, and at last the letters stopped altogether. The money also was gone. I sold everything I had, and hung on for a time as best I could, but the day I met my friend, Sarah Gibson, again, I had had nothing to eat for eight hours. She spoke to me, and I could not help telling her the truth, and I can never describe to you how kind and good she was to me. She took me to live with her, and told me not to think of him again, but how could I do that? He was my husband, and I felt that if I could only see him, he would be able to explain to me this awful thing which had happened. Then Sarah opened my eyes: she is on the staff of a newspaper, and it is part of her business to collect the doings of smart people, and to become acquainted with their names and their movements. What had been so impossible for me to discover was a perfectly simple matter for her, and one day she came and told me straight out that she believed that in some way I had been terribly deceived, for she knew that he was trying to marry a young lady in society, just the kind of person he had always told me his family wished him to choose. Then I felt I must know, and we went down together, Sarah and I, to the Ascot races. She said she heard he was going to stay near Ascot, only coming over every day. We stood by the door which leads to the Royal Enclosure, and there I saw him, and I found it all out. He had never married me at all, but had played this dreadful trick

upon me to satisfy what he called 'my scruples.' Oh, Lord Vannister, Sarah says that I'm not in any way to blame; that good people would not turn from me, and I can always thank God that never from the hour we left that bogus office did I see him again. Yet still I have the feeling that I must never take any kindness from any one without letting them know the terrible thing which has happened to me."

She stopped speaking, and a hush seemed to fall upon them both, almost as if time itself stood still while she waited for her answer.

### CHAPTER XI.

HE STEPPED up to her and took her cold, trembling hands in both of his, holding them in a tight, strong clasp which instantly brought a feeling of comfort and peace into her bruised heart.

"Sarah was right," he said. "No one on earth could blame you or criticize your conduct except that they might call you too confiding, too trusting, and that is a beautiful fault, Miss Read. What you have told me does indeed alter my opinion of you, but it is only for the better."

Honour turned her face away and blushed, for there was something inexplicable in the look he bent upon her which called the color up to her cheeks. Something, too, of delicate sympathy which she had hardly ever heard in a human voice before. It seemed as if the great Lord Vannister understood better than Sarah, better than even Mr. Taunton, all that her woman's soul had been through.

She lifted her head like a flower revived by the rain, and raised her tear-drenched eyes to his face.

"Then may I conclude that I am to stay?" she said.

A smile dawned in his eyes.

"Yes, you are to stay," he said, speaking very gently.

At the words her strained nerves gave way a little more and the tears in her eyes fell over her cheeks.

"Come, come," he said, "more tears. I am afraid, Miss Read, that I must have thoroughly frightened you during our former talk. You had been making a kind of ogre of me in your mind, and then I, like a brute, scared you to death with my cynical talk. Now you must forget all that, and imagine the ogre to be a very harmless person after all. Perhaps in time you will turn me into a fairy prince, as the beautiful lady in the old stories always does."

"I hardly think so," said Honour, speaking a little more stiffly, although in reality her heart was still full of a passionate gratitude. The winter garden seemed suddenly very quiet, quite soundless except for the beating of her own heart. Lord Vannister had shown himself so strangely, wonderfully kind, yet she had seen the proud passion and the fierce intensity in his face when he had given her his scornful opinion of men and women, and she felt that behind the velvet glove there was the hand of steel, so not knowing what to say she stood there in a silence which Vannister did not break.

He was watching her in a strangely softened mood, and had fallen into a kind of reverie.

"She is brave, and wise, and beautiful," he thought, and then he started, for it was his first consciously admiring thought of a woman for many years, and it brought back to him the remembrance of one who had been none of these things, and whose cowardice and bitter folly had changed the world for him. He could have stood so watching this slim, fair girl and thinking his own thoughts for hours longer, but he suddenly realized that his scrutiny must be distressing to her, and he came back to earth abruptly.

[TO BE CONTINUED]

### The Baby in the House

We have a baby brother, a bald and rosy dear,

With airs that are engaging and others that are queer.

He clamors long and loudly when'er his dinner's late,

Because though born to labor, he has not learned to wait.

But though he may be fretful and full of wild alarms,

We love him very dearly and laud his many charms.

I wish that he would marry some nice girl—yes, I do!

For baby brother, bless him, is nearly thirty-two.

—Grace Stone Field.



# Things Worth Knowing

## Paper From Corn Stalks

UNCLE SAM's busy chemists in Washington have decided that cheap paper can be made from corn stalks. We have long known that wrapping paper is manufactured out of old rags, that the back fence can be turned into perfumed and tinted stationery, and that newspapers are made of primeval forests and damaged reputations. Now they tell us that a common rural nuisance is an asset—that some day every farmer can be his own paper trust.

This proposition from Washington is music to our ears. The disappearance of our forests and the machinations of the Paper Trust have made the price of paper soar like a Wright aeroplane. At the rate we are going now paper is destined to be beyond the reach of ordinary mortals—paper railroads will cost more than real ones, and paper-soled shoes will be a luxury which only the rich can enjoy. If something isn't done about it, a day may come when the Sunday newspaper will be no larger than the atlas of the world, and magazines will cost so much to get out that there will be no room for the advertisements.

But it seems we are to be saved from these awful possibilities. With every farmer growing cook books and car wheels and fire-proof theater curtains in the vacant lot behind the barn, there is little danger of a world-wide famine in paper.—Success Magazine.

## The Hobbies of Royalty

EVERY one seems to have a particular hobby, even kings and queens. Among the most prominent of the royal collectors is the Kaiser. He is extremely fond of collecting ties and scarfs of all ages, patterns and countries, while King Edward has a fondness for collecting walking sticks, of which he has several hundred.

The King of Greece has the most curious collection of all. It consists of door handles of all shapes and sizes, and he has enough to fill one room. Once when Queen Alexandra was Princess of Wales she once remarked to her royal brother, "The Prince of Wales wants you to come and stay at Sandringham. But if you do come," she added, "please do not run away with any of the handles from the doors, as the Prince has the peculiar taste of preferring a door with a handle to one without."

King Alphonso collects sporting trophies, but his particular hobby is to collect the things which have from time to time endangered his life. Among his collection is a large stone upon which he once fell and struck his head, and also the skin of one of his horses that was killed on his wedding day—a day that will never be forgotten—when he and his young bride narrowly escaped instant death from the bomb flung by an anarchist.

The Queen of Rumania has a passion for collecting rare books; the Queen of Spain, rare specimens of playing cards from all parts of the world, and the Czarina's hobby is cutting caricatures from various magazines and papers. Among the collection is a number of original cartoons drawn by herself.

The favorite hobby of the Queen of England is photography. For the past sixteen years she has been a devotee of the camera, and she has no less than five of them. She is said to have over ten thousand photographs, all taken by her own hands. Her first snapshot was taken when she was Princess of Wales.

Every picture that she has taken is carefully pasted in her many albums, with a full description under each picture and the date when it was taken. Whenever she goes for a cruise she takes her camera along, and during one of her Mediterranean cruises she secured fourteen hundred pictures in six weeks.

That she is fond of her grandchildren is evidenced by the fact that she has taken several thousand pictures of them, which alone fill three albums.

The Queen has many photographs of the King as well. One of the most amazing shows His Majesty running across the lawn to greet a friend. The Kaiser calls them humorous sets and begged the Queen for one of them.

Queen Alexandra has had many of the photographs reproduced on a china service, which is kept at Windsor and is only used by the Queen when entertaining her most intimate friends. One of the cups is decorated with the above-mentioned snapshot of King Edward, and there is a jest at Windsor that His Majesty is never permitted to use this cup for fear "he might accidentally drop it."

## The Peculiarity of Pearls

IT is a well-known fact that some people kill pearls by wearing them. Like opals, the temperature or condition of a person seems to affect them, in some cases making them lustrous and in others very dull. And when once the luster is gone, there is nothing that can bring it back again.

Of course there are temporary methods, and a certain process, called "skinning," which is most difficult and rarely successful. It is a process of removing the outer layer of skin to see if the inner covering will reveal the desired sheen. Polishing is also often employed, but the effect is only temporary.

There are a great many people who cannot wear pearls at all. A very wealthy English woman who owns a necklace of exquisite pearls is never able to wear them longer than two months at a time. The pearls turn dark and entirely lose their luster. However, she sends them to one of her friends to wear, whom she says they "agree" with, and in a short time they are returned with their luster fully restored.

## Facts About Violets

How many of us know that the common little wild violet that one finds in the shady woods and fields blossoms twice a year—once in the spring and again in the late fall? As we all know, the violet grows in the shade where the grass is thick and long. It makes its appearance with the first dawn of spring and flowers at a time when the grass is most abundant and succulent. Many times it is cut down by the scythe, but more generally bitten off by grazing animals.

The flowers that come in the spring either do not seed at all or very sparingly, so that if the plant relied upon the spring flowers for seed it would undoubtedly perish off the earth in a very few years. But in late fall Nature causes the plant to bear another crop of blossoms that no one can see except the professional botanist. They are exceedingly small and grow just at or below the surface of the ground. These are the blossoms which produce the seeds for the next season. So you see that the flowers on the stems are only for show, while the hidden ones are for use. That the latter flowers produce an abundance of seed is evidenced by the ease with which a wild-violet bed spreads. As soon as the seeds are ripe the pod explodes, scattering them to a considerable distance, often from ten to twelve feet from the parent plant.

## The Killings of Street Cars

IT HAS been claimed that if a headstone were raised on every spot where a death occurred by accident in the streets of our great cities the highways would resemble an endless graveyard. Certain it is that a life is lost in the streets of Manhattan alone every twenty-four hours, and between the rising and the setting of the sun each day there is an average of six serious collisions between traction cars and persons or vehicles.

For every person killed a number are injured or crippled for life. In the last twelve months 474 persons were ground to pieces under the wheels of Manhattan's Juggernaut, and 2,193 were injured. That this wholesale slaughter and maiming is criminally needless is sufficiently proved by a single fact: In all London in the last year of record (1903) the total number killed was ten, out of a total number of passengers carried of 405,079,203. The total traffic of greater New York last year was 1,330,776,165 passengers.

One in every eight deaths by violence in the borough for the year 1907 was due to street-traction casualties. Out of 362 homicide cases and 466 suicides three persons were killed on the streets for every four who met death by their own hands.

In the summer of 1907 the public service commission ordered the railroads to furnish reports of all serious accidents, and at the end of the first month they were amazed by the number of fatalities on the railroads and street cars of Greater New York. Speed and capacity seem to be the sole objects of our street-car lines, the result being that there are five times as many traction accidents in New York as there are in either London, Paris or Berlin, where more attention is paid to the comfort and safety of the passenger than to the number of him that can be jammed into a small space and transported in a short time.—Technical World Magazine.

## The World's Salt Cellar

IF ALL the salt were crystallized out of the 302,000,000 cubic miles of brine that make up the oceans of the world, it would build a cone one hundred and sixty-five miles high and 4,800,000 cubic miles in bulk, containing enough salt to cover the entire earth with a white blanket one hundred and twelve feet in depth. There are about eighty pounds of salt in each ton of sea water. The salt supply of the sea is maintained by the rivers, which pour in 157,267,544 tons taken from the land supply each year.

The production of salt in the United States during 1907 was 29,704,128 barrels each of two hundred and eighty pounds, worth \$7,439,551. This total, in volume 350,000 cubic feet, would fill one enormous barrel seven hundred feet high and five hundred feet thick. While our country probably produces the greatest quantity of salt, England consumes more per capita; that is, thirteen pounds per person. The per capita consumption in the United States is eleven pounds.

## A Household Mystery

Every morning I am waked  
By my big brother Ted;  
Then I tickle Tommy's toes  
Till he rolls out of bed.

Sister Nan calls brother Ted,  
And she is roused by pa;  
Ma wakes him at half-past six—  
Now who on earth wakes ma?  
—Catalina Paez.

## Jim Parks's Store

You know Jim Parks? He used to farm Out Hopkins Corner way. Well, he got tired of planting corn, And cutting oats and hay. It was too hard and dull a life— He said he could make more To move to town and open up A little grocery store.

The opening up was easy done,  
And things just 'peared to swim,  
You work a farm, but keep a store—  
It seemed like fun to Jim.  
His trade? Well, he had more or less—  
'Twas hardly ever more—  
But times would better in the fall,  
And—he liked keeping store.

One day last week I called around,  
And found him dreadful blue;  
He'd kept the store all right, but kept  
The things inside it, too.  
"The business suits me lots of ways,  
But tell me how," said Jim,  
"A man can keep on keeping store  
When it will not keep him!"  
—Agnes E. Volentine.

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**LITHOLIN**  
**COLLARS AND CUFFS**

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This is the greatest sled for boys and girls ever manufactured. Known all over the country as the "sled that steers." Runners are spring steel, and when you coast down hill a slight pressure of the foot curves them and steers the sled to one side. No digging in the snow with your heels or plowing the snow with your foot. Not one boy in a hundred has one of these sleds. You can have one for a little easy work. Write me today and I will tell you all about it.

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**\$424 Paints this House with "Tower" Paint**

**Best Paint in the World**

Body and trimmings, two coats. Your choice of colors. Then you will not need to paint again for about 8 years. That is 53 cents a year for improving the looks and value of your property. This low priced and long lasting paint is only procurable of us. It is the highest grade paint in the world. We have other paint much cheaper than this and much cheaper than any other house can sell, as low, in fact, as \$2.50 for a house like this. But it will not look as good nor last as long as our reliable "Tower" paint at \$4.24, though fully as good as other firms sell for their best paint at a much higher price.

**Before you buy get our big 1909 Paint Book and Color Card**

It tells you how to estimate cost of paint for any building, how to combine colors, how to save money and do the job right—in fact what you ought to know about buying and using paint. Color Card shows about 125 actual samples of our paint.

**What Size Building Are You Going to Paint?**

Let us tell you in dollars and cents our low price for paint enough for body and trim two coats, to do the job in a perfect manner and at least cost. We make no charge for this information.

**Get Our Paint Book Now.** Figure out the cost, best colors, etc. A copy will be sent free. Just write us a postal card or letter and say: "Send me your new House and Barn Paint Book and Color Card," or cut out this ad., write your name and address on the margin and mail to us.

**Montgomery Ward & Co.**  
Branch House 19th and Campbell Sts. KANSAS CITY

Michigan Ave., Madison and Washington Sts. CHICAGO 78





## Young Folks' Department



### The Letter Box

DEAR 'COUSIN SALLY:—I was very much surprised and delighted to receive that handsome knife for the poem I wrote. I am sure I can never thank you enough for it.

I am very much interested in our little "corner" and I wish that the cousins would write to me. I thought the poem entitled "Jack Frost" which appeared in "The Letter Box" a few weeks ago was splendid, and I congratulate the author.

Thanking you once more, and with every good wish to you and all of the cousins, I remain

Your sincere friend,

JOE A. SURFT,  
Philipsburg, Pennsylvania.

DEAR COUSIN SALLY:—Some time ago I sent my name to the Post-Card Exchange, but forgot to state my age. I am twelve years old and would be glad to exchange cards with the cousins. I prefer scenic post cards rather than comic ones.

I live in a mining county and there has been a vast amount of gold taken from our mountains. We have celebrated big trees in our county and beautiful caves and natural bridges. The word "Calaveras" means "Skull." Years ago, when it was first inhabited, a cave was discovered in which there was found the bones of a human being. This is how our county came to be called Calaveras.

Our county is also famed for its celebrities. Mary Twain, General Grant and Bret Harte lived here years ago. Our people voted the name Bret Harte for our high school.

I like to read our page very much and watch eagerly for the paper until it comes. With love to you and the cousins,

Affectionately,

SUSIE M. TARR,  
Angels Camp, Calaveras County, Cal.

### Cousin Sally's Letter

DEAR BOYS AND GIRLS:—There were ever so many things that I wanted to say to you last time, but my space was so limited that it was impossible.

First of all, I want to thank you most heartily for your prompt responses to my letter in the Christmas Number. Your kind words concerning our little "corner" were greatly appreciated and your suggestions regarding the monthly contests were most helpful.

And now I am afraid that I shall have to say something unpleasant. I noticed, to my regret, that in our Verse Contest a great many of the poems sent in had been copied from books. Of course you understand, boys and girls, that when I ask for original work of any kind I mean work that you yourself have done. I can always tell when a verse has been copied or a drawing has been traced. Every bit of work that I feel sure is not original is put to one side and not entered in the contest.

Be fair and square in everything that you do. You will be happier for it and your conscience will not trouble you.

A word about the Post-Card Exchange. All the cousins wishing to change cards should be most careful, when writing, to send me their ages, because, as I told you before, no names will be published where the ages have not been given.

Now write to me often, dear cousins. Tell me everything that interests you, for it is sure to interest Cousin Sally. Your letters are always welcome and are greatly appreciated.

With much love,

Affectionately,

COUSIN SALLY.

### Post-Card Exchange

Everett Taylor, age fifteen, R. F. D. No. 1, Toddville, Iowa. Helene Von Arnswaldt, age thirteen, Kahuku, Hawaii. Dorothy M. Waite, age fourteen, Butte City, California. Dana E. Watt, age fifteen, R. F. D. No. 1, Box 7, Fernwood, Ohio. Dessa Stotler, age fourteen, Benkelman, Nebraska. Blanche H. Kiner, age nine, R. F. D. No. 1, Wilbur, Washington. Ida M. Bingham, age nine, Tipton, California. Hilda McCready, age fourteen, Cascade, Montana. Edna Dotson, age eight, R. F. D. No. 1, New Plymouth, Idaho. Myrtle M. Barnes, age nine, R. F. D. No. 3, Petersburg, Virginia. Ethel O. Barnes, age eleven, R. F. D. No. 3, Petersburg, Virginia. Jeremiah Buckley, age eleven, Cuttingsville, Vermont. Florence Bull, age twelve, Grants Pass, Oregon. Matilda Anderson, age fifteen, R. F. D. No. 2, Box 106, Pueblo, Colorado.

### Little Dorothy's Ride

By Christine Babcock

ON THE first step of the great staircase of the White manor sat Dorothy White, her chin between her hands. She was gazing straight through the big doorway out into the bright world beyond. But her thoughts were far different. She was thinking very hard and the subject was indeed a weighty one for a little maid of fourteen.

Two days before the story opens a wounded soldier had been carried into the manor—a Northerner, by all appearances. But it was not that that troubled Dorothy. For though her mother and father inclined toward the South, her two older brothers had but just entered the Northern army, and she herself was fired with enthusiasm for the Union. No, there was something else. On the first night of the soldier's presence in the house Dorothy had been left in entire charge of him for several hours. He had become delirious, and in bending over to soothe him she could not help catching some few words which he mumbled over and over again. "The despatch—General McDowell—the despatch—General Tyler's forces—to-morrow night—must get to—" Again and again these strange words were uttered; then the soldier seemed to forget and sink into silence.

Dorothy was greatly disturbed by these words. Ought she tell him what she

in chief, have been unable to reach General Tyler, for all messages have been intercepted by the enemy. Therefore he does not yet know the Rebels are only waiting for this move to fall upon him. So I was riding with all speed, and had passed, as I thought, the last of the Southern scouts in safety, when I received this shot which has brought me here. Now unless this message," and he touched his coat where it was concealed, "should reach General Tyler, all will be lost and I fail to see how it can reach him."

Dorothy was quiet for some moments after the soldier had ceased speaking, then she said slowly, "Soldier, couldn't I take the message to General Tyler? I can ride and am not afraid. Please! After supper I can start and get there in time."

"But, child, how could you? The army is thirty miles from here and the Rebels lie right in the way. It would take several hours more to skirt safely around their outer posts."

"No, but, soldier, my little horse is so fast. I could start as soon as it grows dark. I will have time. Let me try!"

"Well," he answered at length, "certainly there could be no harm done. The enemy would not shoot you if they did catch you, and you could destroy the despatch before they could lay hands on



"Dorothy had been riding madly for hours"

had heard? She crept upstairs to his door and listened a moment before entering. He was alone. She went over to the bed, and sitting down, began to stroke his head. She had really grown fond of her soldier during his short stay, and wondered with pity at the troubled expression on his face.

"Soldier," she said slowly, "are you very troubled? You look so worried. Is it because—" Then she told him what she had heard.

"Good heavens!" he exclaimed, starting up. "Were you the only one in the room, child? You have not told anything?" She shook her head slowly. "Thank God!" Then after a pause he spoke again. "Yes, child, that's the cause of my trouble and grief. I cannot fulfill my duty. No, it will be too late when I can move again."

Dorothy leaned forward and looked at him with questioning eyes. "Tell me what your duty is—I will not repeat it—and perhaps I can help you."

After a few moments the soldier began speaking in a slow and quiet voice. "Three days ago I was sent by General McDowell with an important despatch for General Tyler. The despatch contains the order to stop all preparations for a move which was to be made by the Northern army to-morrow. Up to this time we, the troops under the commander

in chief, have been unable to reach General Tyler, for all messages have been intercepted by the enemy. Therefore he does not yet know the Rebels are only waiting for this move to fall upon him. So I was riding with all speed, and had passed, as I thought, the last of the Southern scouts in safety, when I received this shot which has brought me here. Now unless this message," and he touched his coat where it was concealed, "should reach General Tyler, all will be lost and I fail to see how it can reach him."

Dorothy had been riding madly for hours, or so it seemed to her.

She was galloping now through a dark pine grove, and as she neared its edge she suddenly pulled in her horse. Why, surely that was a camp in the distance! Yes—but the Yankee camp was not so situated. It must be the Rebels! She remembered that her soldier had told her to skirt around the Southern camp. But—was there time? It certainly must be late and she must reach the Yankees before daybreak.

Dorothy stopped for a moment to think. But her mind was soon made up. She would follow this road straight through the enemy's camp and thus gain some time.

But how could she dash through quickly enough? She had it! How often had she seen the negroes making pitch-pine torches; and she had her matches. Good! She slid down from her horse

and in a few minutes had a torch ready for use. This she strapped to her horse's head stall on the right side, and then she stopped. How could she light the torch? The pitch would not ignite immediately, it needed some paper or a more inflammable substance to start it. But—she knew! She pulled out the message, and by lighting several matches, managed to read it through. Just what her soldier had told her! She tore off an edge of the letter, then put it back in her dress, and mounted her horse. Before starting, she looked at the camp in the distance. She could see tents on the right side of the road only. On the left—Ah! she remembered there was a lake there. She lighted the torch, and before it had time to flare brightly, started Jim forward and then slid way down on the left side, half under the horse. A sudden puff of wind! The torch burned brightly and a lurch—Jim was running madly, frantically toward the Rebel camp. Terrified by the flaming brightness, he ran like a flash, Dorothy clutching the saddle and leaning as far under him as possible, until she was entirely hidden from the right side. Now they have reached the first few scattered tents; now the general's headquarters; the soldiers start up, but are too astonished to fire; they are after her. She can hear them bring now, after their first surprise at the sight of a horse on fire. But they cannot reach her. No! She is safe at last.

Slowly and with difficulty she dragged herself up on the back of the horse, then sank wearily on his neck, and clung there, unable to move. Still Jim rushed on. The torch by degrees burned down and at a sudden puff of wind, went out. Gradually the horse slowed down out of sheer weariness. But Dorothy did not care. She had passed the Rebels in safety and would reach the Northern army in time. Suddenly the horse came to a standstill. Dorothy heard a few indistinct words, and then knew no more.

When Dorothy opened her eyes she found herself in a tent, surrounded by many soldiers. General Tyler was the first to speak. "What is your name, child?" he asked pleasantly.

"Dorothy White," she answered.

"Oh! And why, may I ask, are you riding abroad at this time of night—or rather morning, child?"

"Here, General," and she handed him the message. "I had to tear off that piece to light my torch. I hope I'm in time," and she looked questioningly at the other men.

After reading a few lines, General Tyler started. He re-read the message, then spoke to several of his aides, who immediately withdrew. Then he turned to Dorothy. "Tell me, little one, how you came to have this?"

Then she told her story from beginning to end.

When she had finished, General Tyler took her hand and stroked it slowly. "Well," he said, "if the Union had lads as plucky and brave as this little lass"—he paused—"well, there would be no question as to what would be the outcome of our struggle, would there, boys?"

### Monthly Prize Contest

HIDDEN in the following descriptions are the names of cities. Can you guess them?

1. Timid; a girl's name.
2. Season of the year; where colts frolic.
3. A girl's name; a vowel.
4. A shade of yellow; a vowel; not high.
5. A mineral; an expanse of water; a town of more than ten thousand inhabitants.
6. A social function; a beverage; a greater quantity.
7. Not old; a place of great convenience during the Deluge.
8. A kind of tree; a piece of ground.
9. Not large; a huge stone.
10. Slang expression for "girl;" part of a man's wearing apparel; a preposition.
11. Dried grass; a lion's haunt.

The answer to the first one is Cheyenne. Now see if you can puzzle out the others. They are all in the United States.

To the boys and girls (under seventeen years of age) sending in the first four correct lists of these hidden cities, Cousin Sally will send prizes as follows: A box of paints; a game; a set of paper dolls; a book.

Cousin Sally will consider the postmark on your letter rather than the day the letter is received.

The contest closes February 20th. Address Cousin Sally, care FARM AND FIRESIDE, 11 East 24th Street, New York City.





## Our Girls at Home

### The Reliable Girl

ARE you a reliable girl? Is that the way every one thinks of you? Or do you belong to the army of girls who never can be depended upon? I would be a reliable girl if I were you, for whether at home or in business, it is always the girl who can be relied upon who wins out.

When I ask, "Are you a reliable girl?" I mean reliable in all of the little every-day things that come up in life, as well as the big things. There is nothing so small, you know, that the right doing of it will not strengthen your character and the wrong doing weaken it.

To be reliable you must never break your word, you must always do exactly as you say you will, and promptness is a sort of first lieutenant to reliability.

A girl who is reliable is a girl who always keeps her appointments promptly, who acknowledges a gift as soon as it is received, who attends to an errand quickly and well, who concentrates her mind on whatever she is doing—a girl, in fact, that both in big and little things you can always depend upon.

If you are apt to be careless and just a bit lazy, and if it seems very natural to you to let things go as they will without any effort on your part to straighten them out, stop short right now, for you are surely drifting into an unreliable girl.

You can train yourself—and without any help from any one else, either—to be reliable, just as you can train yourself to walk correctly or to make good bread. It is all a matter of watching out and keeping at it.

It is all very fine to be a pretty girl and to have the reputation of being an entertaining girl, but when it comes right down to the things that really count in the world, I would rather be known as the girl you can always rely upon.

G. M. G.

### A Valentine Party

FEBRUARY has two days—Saint Valentine's and Washington's Birthday—in which the young girl may entertain her friends if she desires, but of the two, Saint Valentine's Day is the one she generally chooses, for it is then that Dan Cupid may shoot his arrow as recklessly as he pleases.

A most successful party can be given and at very little expense if the young hostess happens to be a good manager. The little cupids and hearts, valentines and necessary ribbon are all very inexpensive and make such attractive decorations. In fact, any girl who is clever in using water colors can make the valentines herself. If she cannot originate appropriate verses, there are many books from which she can obtain them.

Decorate the walls of the dining room with little red hearts strung on green cord or ribbon; have a few hearts and cupids dangling from the chandelier. In the center of the table have a large heart-shaped box, from which a ribbon leads to each place, where it is fastened to a pretty valentine. To give the real "rosy hue of love," cover the lights with pink silk or pink crepe-paper shades.

The early part of the evening may be spent in playing games of all kinds. Fortune telling is generally lots of fun, provided the "fortune teller" lives up to her name.

A novel way to choose partners for supper is to give each of the men a red heart with a number on the back. Supply each of the girls with a small arrow. Pin the hearts on a sheet stretched up in the doorway, and let the girls shoot their arrows at the hearts. The man whose heart is pierced becomes the supper partner of the girl whose arrow has pierced it.

The supper may consist of chicken sandwiches of white bread, brown-bread sandwiches, both cut heart shape with a cookie cutter, an apple or nut salad, cocoa with whipped cream, or coffee, dainty heart-shaped cakes with pink and white frosting and pink hearts of ice cream. After every one has finished, the ribbons from the heart-shaped box in the center of the table are pulled, and out comes on each ribbon a little gift—inexpensive it may be, but it must be appropriate to the day.

### Care of the Complexion

IT is not easy to keep the skin soft and smooth in cold weather, is it, girls? Even though Jack Frost does give us rosy cheeks, the cold weather that he brings with him is very apt to leave the skin hard and scaly. A pretty complexion is one of woman's greatest charms, so

if you want to make yourself as attractive and charming as possible, look to your skin and see if you treat it properly.

At night the face should be washed with very warm water and good soap. Almond meal is an excellent cleanser; in fact, some people prefer it to soap.

An excellent way to thoroughly cleanse the skin after it has been exposed to dust and dirt is to wash it first in rather warm water, after which, cold cream should be thoroughly rubbed into it, and then wiped off with a soft cloth. This should be followed by a rinsing in cold water. Hot water, as you know, opens the pores of the skin, and cold water contracts them. Rub the face briskly and lightly with a coarse towel, using an upward and outward movement. A downward movement causes the corners of the mouth to droop and the muscles to sag.

Every boy or girl wants a Shetland pony. Why shouldn't they, when ponies are so much fun, and cost so little to keep? There is nothing like having a pony and taking care of it, to teach a boy or girl self-reliance and kindness toward animals. See page 28.



It Works Like a Kodak.

## No. 3 Brownie

Pictures  $3\frac{1}{4} \times 4\frac{1}{4}$ . Price \$4.00

Loads in daylight with Kodak Film Cartridges, has a fixed focus meniscus achromatic lens, automatic rotary shutter, three stops and two finders. Simple, convenient and *always ready*. Well made in every detail and handsomely finished.

Handsomely illustrated booklet "The Kodak on the Farm" free at the dealers or by mail.

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## Grand Prize Contest

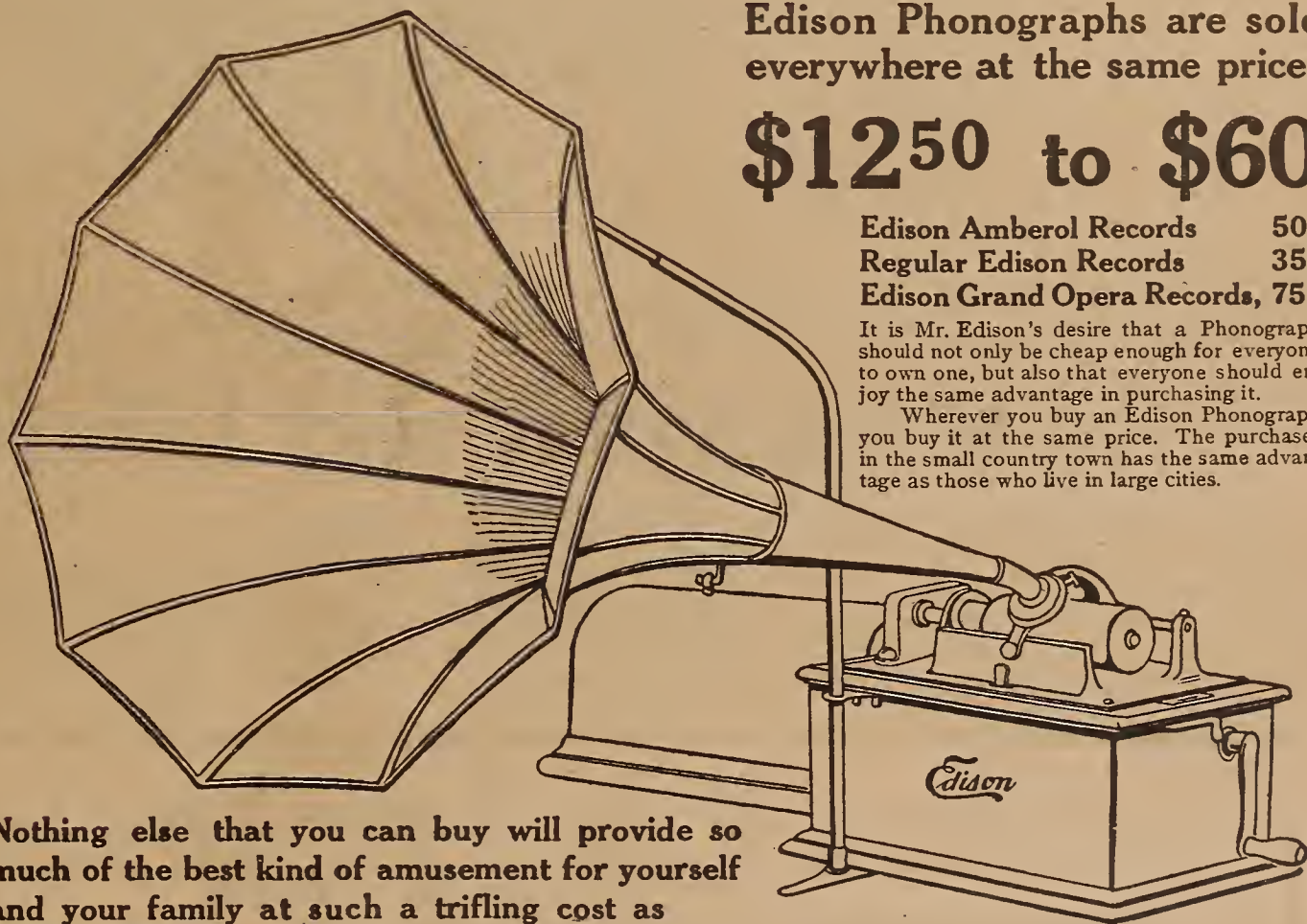
An Unlimited Number of Prizes will be distributed among those who make a copy of this picture. If our Art Director decides that your copy is even 40 per cent. as good as the original, it will win an illustrated magazine **FREE OF CHARGE FOR SIX MONTHS**, showing the work of the most prominent artists of the country.

**No Money Required to Win a Prize**—It will not cost you a cent to enter this contest. Sit right down now and copy this picture with either pencil or pen and ink. See how well you can do it. If you are a prize winner it will prove you have talent for drawing.

**Copy This Picture and Win a Prize**

Thousands of people now earning small pay have illustrating ability, but do not know it. If you will send your drawing to-day, we will tell you whether you possess this talent. If your drawing is even 40 per cent. as good as the original, you have this natural ability, and we can start you on the road to a comfortable and independent living, with pleasant, steady and profitable employment.

Correspondence Institute of America, Dept. 247, Scranton, Pa.



Edison Phonographs are sold everywhere at the same prices

**\$1250 to \$60**

Edison Amberol Records 50c  
Regular Edison Records 35c  
Edison Grand Opera Records, 75c

It is Mr. Edison's desire that a Phonograph should not only be cheap enough for everyone to own one, but also that everyone should enjoy the same advantage in purchasing it.

Wherever you buy an Edison Phonograph you buy it at the same price. The purchaser in the small country town has the same advantage as those who live in large cities.

Nothing else that you can buy will provide so much of the best kind of amusement for yourself and your family at such a trifling cost as

# The EDISON PHONOGRAPH

It differs from all other sound-reproducing instruments because it was invented and perfected by Thomas A. Edison, and because it is constructed on a principle which is more nearly perfect than that used in any other instrument made for a like purpose.

The first Phonograph ever made was made by Mr. Edison, and from that invention was perfected the Edison Phonograph which today is considered the most perfect instrument for reproducing music, voice and other sounds.

For you the Edison Phonograph means constant and varied entertainment in your own home.

You can have any kind of music you like—your kind of music, the kind of music your family likes, the kind of music your friends like.

You may hear the songs of great singers, the music of great orchestras, the speeches of great speakers. You may hear your favorite hymns and the good old songs you've always enjoyed. You can reproduce the latest vaudeville hit, the popular songs that everyone is whistling, or the star part of a star opera singer, in your own home, to a circle of your own friends.

No method of spending an evening can be pleasanter. The Edison Phonograph is always there, always ready to be turned on; it is easily operated and the cost is slight.

## Edison Amberol Records

Mr. Edison did not consider his Phonograph good enough with Records that played only two minutes, so he experimented until he produced a Record which will play four minutes. It is no larger than the other Record. It is played on the same Phonograph by means of an attachment which your dealer has. It more than doubles the enjoyment of the Phonograph. Music formerly unavailable for the two-minute Record, on account of its length, can now be heard in full and to better advantage.

Edison Records are made in Bohemian, Cuban, Danish, French, German, Hebrew, Hungarian, Italian, Norwegian, Polish, Spanish, Swedish, etc.

Even if you are not ready to buy at once, go to the nearest Edison store and hear this wonderful home entertainer, the Edison Phonograph. Ask the dealer for a catalogue of Phonographs and a catalogue of selections. Do not be misled by any other sound-reproducing instrument. The Edison Phonograph is the best for the home.

National Phonograph Co., 151 Lakeside Ave., Orange, N. J.





# "HOME, SWEET HOME"

## Your Last Chance to Get This Superb Calendar

This is absolutely the **last time** we shall ever offer the "Home, Sweet Home" calendar with FARM AND FIRESIDE at the low price below, and no one can buy a year's subscription for less.

The price went up to 35 cents a year, January 10th, but for 30 days only we

will let our old readers and a few new ones subscribe to FARM AND FIRESIDE for the balance of the year 1909 and the calendar for only 25 cents.

This is your **very last chance** to accept the offer below—the most liberal offer ever made by any publisher in America.

### Our Gift to You

FARM AND FIRESIDE wants to send one of the new "Home, Sweet Home" calendars to every person who reads this page.

It is the most beautiful calendar of the year. Never before has a masterpiece of such tender sentiment and family love been produced.

Every home in America—especially every FARM AND FIRESIDE home—should have one of these "Home, Sweet Home" calendars. They are made of the finest calendar stock with an exquisite Sepia finish. Each calendar is 11 by 14 in., and has a brown silk cord at the top by which to hang it up. You cannot buy this calendar at any price! It is our gift to you—if you act promptly.



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"HOME, SWEET HOME"

A Small Reproduction of Balfour Ker's Greatest Painting Which Appears on the Front of the "Home, Sweet Home" Calendar

### To All Our Friends

who are not now subscribers, and to those who have not yet renewed their subscription, the beautiful "Home, Sweet Home" calendar will be sent absolutely **without additional cost** if you accept our offer below before March 10th. It cost us hundreds of dollars merely to print the superb "Home, Sweet Home" picture—but you can get the entire calendar without cost until March 10th only.

To every person who accepts our liberal Last Chance Offer below, within 30 days, FARM AND FIRESIDE will send, **absolutely without cost**, one of the beautiful "Home, Sweet Home" calendars for 1909. Send in your order to-day.

## Washington and Lafayette

A picture of Washington and Lafayette at Mount Vernon, Washington's beautiful home, and another large full-page picture in colors, called "Spring Cleaning"—one of the greatest child pictures ever painted—will also be sent to you **without cost**, if you subscribe within 30 days. These paintings are absolutely new. Each one is 11 by 14 inches, and will be sent to you in perfect condition for framing, all ready to adorn your walls the minute you receive it. The first picture shows Washington welcoming Lafayette, the great French General, to

Mount Vernon. The other is the masterpiece of Mary Sigsbee Ker, the great artist.

Remember, you not only get the beautiful "Home, Sweet Home" calendar for 1909, but these superb full-page pictures also. And **in addition**, all the splendid articles, departments and features that go with FARM AND FIRESIDE, including the splendid Magazine Features containing hundreds of pages of the best reading matter for all the family—all for the entire year 1909.

## The Balance of the Year—Your Last Chance!

Never again will this offer, including the picture of Washington and the "Home, Sweet Home" calendar, be open to you. Remember twenty numbers for 25 cents. You must act quickly!

### Farm and Fireside Until January, 1910

Including a dozen or more departments and the great Magazine Features.

### Picture of Washington and Lafayette

Reproduced for the first time in the February 25th number of FARM AND FIRESIDE—full-page size—will reach you in perfect condition for framing.

### Mary Sigsbee Ker's Great Painting

In beautiful colors—one of the most superb and most appealing child pictures ever painted.

### "Home, Sweet Home" Calendar for 1909

Described above—a work of art—offered now for the very last time.

All Four for Only

# 25¢

Less Than Regular Price of Farm and Fireside Alone. This Offer is Good

For 30 Days Only

**Your Order Must Be Mailed by March 10th to Get This Offer**

CUT HERE

FARM AND FIRESIDE, Springfield, Ohio.

I enclose.....for which I accept your Last Chance Offer as advertised February 10th, including the "Home, Sweet Home" calendar for 1909 and two full-page pictures.

My Name.....

Date.....

P. S.—If you send another subscription with your own, write it below with the address in full.

CUT HERE

### SPECIAL NOTICE

If you will send one other subscription with your own, we will send both you and your friend the "Home, Sweet Home" calendar and the two full-page pictures, and **in addition** will send you, postpaid,

### Six De Luxe Lincoln Post Cards

in colors, each different. Twelve smaller pictures of Lincoln's birthplace, early home, etc., and six extracts from his most famous speeches are also included—all postpaid!



# Dressmaking Lesson

By Miss Gould



Sailor Blouse  
Made From  
Waist Pattern  
of No. 1264

THE young girl who is planning a new gown will find much that is practical and much that is good style in the dress pictured on this page. Buttoned-up-the-front effects are high style this season, and surely it is a blessing that something which is practical has the stamp of fashion.

Both the waist and skirt pattern are included in Pattern No. 1264, Misses' Dress. Buttoned in Front. The price of the pattern is ten cents. It may be ordered from the Pattern Department, FARM AND FIRESIDE, 11 East 24th Street, New York City.

The pattern envelope contains ten pieces. Each piece is designated by a letter, which is perforated through it, and referred to by that letter, so it is impossible to confuse the pieces. This method of lettering the pattern pieces is especially for the amateur dressmaker who is not familiar with the shapes of the different parts of the garment.

The front of the waist is lettered V, the back of the waist T, the fancy collar Y, the belt X, the shield I, the collar L, the upper sleeve K, the under sleeve F, the cuff J and the skirt E.

Smooth the pattern pieces out carefully before placing them on the material. In cutting, lay the edges marked by triple crosses (X X X) on a lengthwise fold of the material. Place the other parts of the pattern with the line of large round perforations in each lengthwise of the goods.

## To Make the Waist

Join the back and fronts by corresponding notches.

Three-eighths-of-an-inch seam is allowed on all edges of this pattern, except at the shoulder and under arm, where one inch is allowed, designated by lines of small round perforations. In joining the fronts and back match these lines of perforations and stitch on them.

Gather the waist at lower edge between double crosses, and join to the upper edge of belt as notched. Match the centers of the waist and belt, back and front, and bring the large round perforations in the belt to the under-arm seams. Distribute the fulness evenly and baste carefully. Then try on the waist and see if the fulness at the belt is arranged in a becoming manner.

The very slender girl may find it better to have a little fulness under the arms. In this case the gathers should extend all around the lower edge of the waist. On the other hand, a young girl who is inclined to be plump may find it more becoming to have the fulness drawn nearer to the center, back and front, and this can be done without altering the fit of the waist in any way. After you have distributed the fulness as you desire, baste and stitch firmly.

Turn the hems on the fronts of waist and belt by notches. Join the fancy collar to neck of waist as notched. Join upper and under sleeve by notches. Ease upper sleeve at elbow between notches. Gather upper sleeve at upper edge between double crosses. Pin sleeve in arms-eye, placing front seam in sleeve at notch in front of waist. Bring the top notch in the sleeve to the shoulder seam. Always hold the sleeve toward you when

arranging it in the arms-eye. Pin the plain part of the sleeve smoothly in the arms-eye. Draw the gathers up to fit the remaining space. Distribute them evenly and pin carefully. Use plenty of pins when you are placing the sleeve in the arms-eye, then when you baste the sleeve in position the gathers will not slip. Finish the cuff and join to the lower edge of the sleeve by notch.

Join the standing collar to the neck of the shield as notched. Turn the hems on the backs of the shield and collar by notches and fasten invisibly at the back. The shield may be adjustable or joined to the waist along the line of small round perforations. It may be permanently attached to the right side and then fastened invisibly to the left side by means of small hooks and eyes.

## To Make the Skirt

Close the back seam of the skirt as notched. Form an inverted plait at each side of the center back by placing cross on perforation at upper edge and bring the long line of large round perforations over to meet the center back seam. Baste the plaits firmly and press flat. When the material is wavy it is well to stitch these plaits one fourth of an inch in from the edge to the depth of five inches.

Take up the darts at the waist by bringing the corresponding lines of small round perforations together.

Turn hems on the front edges of the skirt by notches. Turn a three-inch hem at the lower edge of the skirt by lines of large round perforations.

Join the skirt to the lower edge of the belt as notched. Lap the fronts of the dress, matching the center lines of large round perforations, and fasten with buttons and buttonholes.

The buttons should be sewed on the left side of the dress one half inch in from the edge of the hem, on the line of large round perforations. In working the buttonholes, have the front end of each buttonhole come to the line of large round perforations on the right side of the dress.

## The Waist and Skirt as Separate Patterns

This is one of the many adaptable Madison Square Patterns. It may not only be used as a one-piece

buttoned-in-front dress, but each garment (waist and skirt) forms a separate and complete pattern, and may be used as such.

One illustration shows a smart sailor blouse that may be made from the waist portion of this Pattern No. 1264. By simply changing the materials and wearing a sailor tie, the waist may be transformed into this modish blouse.

The skirt may also be worn as a separate garment, and if trimmed with several rows of braid or graduated bands of contrasting material, would present a very different effect.

When the dress is made of a silk or woolen fabric there can be two or three different shields provided for it which will change its appearance materially. One could be of tuck silk, another of all-over lace and a third of nainsook with lace frills.

For wash fabrics, such as gingham, cotton poplin, voile, cheviot and madras, the design is especially appropriate, and best of all, the dress is easy to launder. It may be opened out and ironed flat, because it buttons down the front and has no permanent closing in the skirt.

Miss Gould will be glad to answer any questions pertaining to home dressmaking which may perplex the readers of Farm and Fireside. She will send by return mail a personal letter to the writer if a stamped and self-addressed envelope is enclosed. Direct all letters to Miss Gould's Dressmaking Department, care of Farm and Fireside, 11 East 24th Street, New York City.

The Back View of  
Pattern No. 1264

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The Story of a Farmer's Wife.

Larkin Co.

Gentlemen:—We read your advertisement in our farm paper and wrote you for your Catalogue. We ordered, on thirty days' free trial, \$10.00 worth of Soaps, Tea, Coffee and other things we must have for family use. We also chose a Morris Chair which you give free with \$10.00 worth of your goods. Everything came as ordered.

We could not have bought the Soaps and other articles for less than \$10.00 anywhere else. The chair is handsome and very comfortable—just what we wanted, and is easily worth \$10.00, as you claim, so we have received \$10.00 worth of Soaps and other things we need everyday and a nice Chair we could not buy for less than \$10.00 anywhere. The whole lot only cost us \$10.00 so we have saved \$10.00. We will want another lot of your goods in a little while.

Sincerely yours, MRS. ELMA HAYWOOD.

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Buying direct from our Factories to your home will save you as much as this woman saved. You will get \$20.00 worth for \$10.00 every time. We treat everyone alike. Your dollars will go as far with us as anyone else's money. We are the largest manufacturers in the world of Soaps and Toilet Preparations; we manufacture and sell immense quantities of over 200 Family Supplies. Every thing we make is sold direct from our Factories to you—the user. We have over one million satisfied, regular customers who use our Family Supplies all the time and they save \$10.00 on every order they send us. We want you to try our Soaps and other Family Supplies. We know you will be delighted. Read our offer carefully.

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You may select any \$10.00 worth of Laundry and Toilet Soaps, Tea, Coffee, Spices, Baking Powder, or other Family supplies and any \$10.00 Premium from our Catalogue. Send us your order; we will ship it promptly. Use the goods 30 Days, then if you are fully satisfied send us \$10.00; if not satisfied, write us and we will take them away. You will not have to pay one cent for what you have used in the trial.

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We Are Going to Give Him to Some Boy or Girl

The Finest  
Ponies in  
America for  
Farm  
and  
Fireside's  
Boys and  
Girls



This is "Dandy," the first prize pony, with his handsome cart and harness. You can get him

A Great  
Last Chance  
to Get a  
Beautiful  
Pony With  
Cart and  
Harness  
Complete

## You Can Get Him if You Hustle

"Dandy" is the prettiest pony you ever saw in your life. We are going to send him, with the perfectly beautiful new painted, rubber-tired cart and the superb shining harness above, all complete and prepaid, right to the very door of some boy or girl who will hustle a little for FARM AND FIRESIDE during the next few weeks. Do you want him? Wouldn't you be just the happiest boy or girl in the whole world to have "Dandy" for your pony? Think of being able to take your family or friends for a drive, or to get into his saddle and gallop him down the road for a fine ride whenever you want to! There isn't a prettier pony in this country than "Dandy." He is about 3½ feet high at his shoulders, pretty as a picture, and gentle as a lamb, and broken both to ride and drive. He is young, full grown, strong and guaranteed to be sound in every way. Look at the picture above. See how erect "Dandy" stands, and notice his pretty mane and tail! You couldn't find a handsomer pony if you tried.

## Every Contestant is Guaranteed a Prize

In addition to "Dandy" we shall give away hundreds of other magnificent prizes, including phonographs, watches, incubators, guns, rifles, dishes, merry-go-rounds, and almost everything else that boys and girls like. Both FARM AND FIRESIDE and the Pony Man hereby **guarantee** that every contestant in this "Dandy" Four-Pony Contest will receive a **valuable prize**, and in addition to the ponies and the hundreds of other prizes, we shall

pay a **cash commission** for every subscription you send us. It is impossible to lose in this contest. You get your cash commission as soon as you get the subscription, and absolutely every contestant will get a valuable prize besides. FARM AND FIRESIDE has been published for nearly thirty-two years and no paper has a better reputation for honesty and fair dealing. "A square deal for all and a prize for every contestant" is our guarantee.

### Still More Ponies

But don't think that "Dandy" is the only fine pony we shall give away. There are three more, making four ponies altogether, and each one almost as good as "Dandy." Of course, "Dandy" is the finest of all—and with his cart and harness will go to the first prize winner. "Beauty" with cart and harness will go to the second prize winner; "Molly" with saddle and bridle to the third prize winner, and "Cupid" with saddle and bridle to the fourth prize winner. With both "Dandy" and "Beauty" we shall give either a four-wheeled, rubber-tired cart as pictured above, or a two-wheeled, rubber-tired cart—whichever you prefer. Think of the joy of having one of these fine Shetland ponies this spring!



The Farm and Fireside Pony Man at his desk writing to his boys and girls

### Four Superb Pianos

Of course, the ponies with their handsome outfits are the finest prizes in this contest, but there may be some of our boys and girls who would rather have a beautiful piano than a pony, so we have decided to add four, \$600, Beautiful, Upright, Harrington Pianos. Every pony winner will have his or her choice between the pony and one of these superb pianos. The pianos come direct from the E. G. Harrington Co., 138 Fifth Ave., New York City. They are brand new and finished in mahogany, walnut or oak, as you prefer. Certainly with the four ponies, four pianos, a liberal cash commission and a valuable prize for every contestant, this great contest is the finest ever conducted.

## How You Can Get "Dandy"

To insure absolute fairness in this contest, and to make sure that every boy and girl is really in earnest and will get his or her full share of the large amount of money that we are spending on prizes, I am going to keep out those who are simply curious and not in earnest, by requiring ten credits, or subscriptions, before I enroll you toward a pony. This will help you a good deal and will bar out the lazy and curious ones.

All you have to do now is to cut out this coupon (or a post card will do), sign your name and address, and send it to me to-day. I will answer immediately, and send you full information about this fine contest, and also a great many beautiful pictures of all the ponies and a lot of things that will surely please you. Don't delay—write me to-day.

Yours for "Dandy,"

*The Pony Man*

Feb. 10

Dear Pony Man:—

I want to get "Dandy." Please write me by return mail, telling me how I can get him, and send me all the pony pictures, the other pictures and full information, without cost to me.

Name.....

St. or R. R.....

Town.....

Date..... State.....

P. S.—If you want to make sure of a prize the very first thing, don't wait to hear from me, but start right out as soon as you have sent the coupon, and get some of your neighbors or friends to each give you 25 cents for a subscription to FARM AND FIRESIDE for the entire balance of the year 1909. Keep 5 cents from each of these subscriptions and send the rest with the names to me. You will then be a full-fledged contestant and right in line for "Dandy," and I will put you down for a prize right then so you will be absolutely sure of it. Hurry and get the ten subscriptions. You can do it in a day or two if you hustle.

THE PONY MAN OF FARM AND FIRESIDE  
SPRINGFIELD, OHIO



# Practical Farm Notes

## Insect-Destroying Birds

IF IT were not for the hundreds of insect-destroying birds that inhabit the earth, man would soon find himself a victim of the millions of insects that infest every known country. It has been estimated that man could exist but a few years. Such conditions are hard to comprehend by the most of us, but when we become interested and make a study of the true conditions, and see the work accomplished each year by the feathered friends of mankind, we are more apt to believe some of the statements made by scientists and government experts.

It would require volumes to describe the hundreds of birds that are useful in the destruction of the insect pests, but in this article the writer desires to call the attention of the reader to a few of our more common birds and their habits, and impress upon the minds of those interested and having the opportunity of studying bird life the importance of protecting such birds as are our very best friends.

Many of the more common birds are overlooked, and neglected in many ways, until in some places they are actually disappearing. In such localities we find the fruit and vegetable crop is becoming so poor each year that people are discouraged, and in many places have to either use artificial means of destroying some of the insect pests or discontinue what ought to be a profitable business.

### Every One a Bird Lover

Every citizen should be a bird lover. The supply and price of most foodstuffs depend much on the work of the birds.

Every lover of home and all that makes life worth the living should become interested in the beautiful as well as busy little creatures that inhabit the country, and would, if encouraged, take up their residence in the village, or even in the larger towns or cities.

Among the most useful of the many birds known to many of us are several that are more easily domesticated or induced to take up their abode in thickly settled parts of the country.

The purple martin is a favorite with many, and is worthy of all the care and attention given it. The martin is an annual visitor, and its arrival is taken as a pretty sure sign of the return of spring, although occasionally it makes its appearance a little early, and has to suffer with cold and the lack of the required insect life.

In early days the martin box was a common sight in front of the village tavern or on the corner in front of the general store. In recent years the bird has been neglected, and in many villages, and even in larger towns, we cannot find a bird house of any kind.

The few martins that still come to such localities are compelled to seek church towers or electric-light hoods in which to build their nests and raise their brood. As a rule, such places are very unsatisfactory, and in most instances there are but few, if any, young to accompany the parent birds on their southward journey at the end of the season.

### Study Bird Habits

Every person interested in having good gardens, fine fruit and beautiful flowers should study the habits of the purple martin, and if possible assist them in their good work of destroying the worst pests man has to deal with.

With but little labor and expense homes can be provided for the martin, where the happy birds will not only hatch and care for their broods, but entertain the bird lover with its happy liquid notes, that are found in no other species of birds.

The bird houses may range in variety and size from a small soap box with a small opening cut in one side to a large castle-like structure with towers and verandas and containing a number of rooms.

The bird houses should be placed at the top of a pole, and if in a community infested with cats, a funnel-shaped piece of tin should be placed on the pole beneath the bird house, with the large end down, to prevent the cats from reaching the young birds.

Owing to the fact that the number of these birds has been greatly diminished in recent years, they will be slow to inhabit the new homes, but if given an opportunity will soon produce a large colony, which will return each year as long as sufficient quarters are provided.

The common bluebird, which in some localities remains during the entire winter, will inhabit just such bird houses as are often erected for the martin, but they prefer the smaller types of structures.

The bluebird is known to be a wonderful destroyer of a variety of insects. They

fly for hours catching thousands of little creatures that are known to live on the products of the field, orchard and garden, and at certain times they visit the trees and plants catching other very injurious insects and their larvæ. Government experts have examined the stomachs of many birds, and they have found the bluebird one of our very best friends.

### The Wren a Friend of Man

The little brown wren is another great friend to mankind. It frequents the lawn, flitting in and out among the shrubbery, and dodging all around the fences and the sides of dwellings and outbuildings, in search of its food supply, which is always the destructive little spiders and other troublesome insects that are to be found in the garden and orchard. It is interesting, and yet almost impossible, to follow their swift movements.

The wren seems to enjoy the society of man, as it seeks out his habitation, where it builds its nest and cares for the young as if seeking his protection. This protection can easily be given.

The wren never builds its nest in the branches of a tree, but seeks a protected spot in some shed, beneath the eaves, or in some discarded pail or tin can. If persons would hang up old coffee pots or tin cans about their outbuildings, or place small wooden boxes with holes about the size of a half-dollar cut in them in trees or about the grape arbors, or even on the garden fence, the wrens would soon find them and utilize them for their homes both in winter and summer.

The reward for such little work as the providing of a home for the wren cannot be calculated; but when we learn the great numbers of injurious insects destroyed, and the necessary increase in crops and quality of many of the products of the soil, it can be seen we are amply paid for our trouble.

Another favorite annual visitor is the catbird. It is not only a great enemy of a variety of insects, but is one of the finest warblers visiting the northern latitudes. The catbird loves to be talked to, and will, if allowed, become quite tame, often building in a bush near the house or in some near-by hedge. One of the sweetest concerts ever heard by the writer was that rendered by six of these birds in a plum tree in the garden. Hundreds of insects were destroyed by the birds, which were flying in and out and all about the tree during the concert.

The writer has found by actual experience that all birds like to be noticed, and more especially those frequenting our gardens and lawns.

Those mentioned are the easiest domesticated, and if the reader will only try, it will be found an easy task to attract the birds to the garden or orchard, where their good work will bring ample reward.

JOHN T. TIMMONS.

## The Compost Heap

WESTERN farmers are apt to sneer at the idea of a compost heap, but I wish to assure Eastern farmers that nothing pays better than composting the waste material of the farm. A few days at regular intervals devoted to this kind of work will bring large profits. Farmers living near woodland have an advantage over others, in that they have access to leaves, which are excellent material for the compost heap; and if some of the rich, black leaf mold can be gathered, it will add so much to the value of the heap.

A good plan by which to build the heap is to begin with a layer of leaves or straw, then a layer of manure or other waste matter, then a layer of sod dug from some waste place on the farm, then a layer of wood ashes or lime or superphosphate, and so on until the heap is done. If any gases escape from the heap they can soon be arrested by adding a layer of sod or leaf mold or road dust.

If any farmers doubt the efficacy of this fertilizer, let them try it. I have tried it and I know the value of it.

J. B. STEPHENS.

## Soil and Infectious Diseases

It is admitted by even the most careless student of cause and effect that the condition of soil has something to do with the development of infectious diseases among both men and animals, and the more the question is studied, the more relation appears to exist. The excellent effect of drainage in cities and large villages, made absolutely necessary by health ordinances, is strong evidence of what is required for the rural home if due regard would be given to the health and life of members of the family, and even to the healthfulness of farm animals. The dwelling that is located in low,

marshy ground, where water stands on the surface and perhaps in the cellar, will not be as healthful as the one that stands on a porous soil or on a knoll. A celebrated lecturer on farm sanitation gives the history of two brothers whose success seemed to have been measured by their choice of location of their houses and barns. The one that located his house on a well-drained, sunny spot raised a large, healthy family, and even his animals always seemed free from disease. The one that located in the low part of the section, near a spring, always had sickness in his family, and both he and his wife died before they were forty years old. They started in life with equal chances of health and success, but one was handicapped by the conditions of the soil on which he was located.

While we cannot vouch for the truthfulness of this statement, we are convinced that a vast amount of sickness is caused by carelessness in providing drainage for the farm home, and the death of many fair sons and daughters of New England farmers could doubtless be traced to the pollution of the soil through faulty drainage. Some of the closest students of many of the diseases that are prevalent, and which seem to flourish well in some localities and are seldom known in others, are beginning to claim a close relation between the soil and many common diseases. Malaria, typhoid fever, cholera, yellow fever, dysentery and even tuberculosis are closely related to conditions of soil and water. If it is proven, as it seems in a fair way to be, that disease passes from one victim to the soil and again back to us when unhealthy conditions exist, this would seem to be the most important question connected with our farm homes; and when we go a step further and apply the same course of reasoning to the diseases of our farm animals, it becomes important, in a financial as well as a humanitarian view, and will become more complicated as the years increase.

Many of the diseases that have come to the farmer's family and the farmer's stock looked upon as unavoidable, and almost classed among those things regarded as dispensations of a Divine Providence, will perhaps be traced to their true origin and be charged up against some one for wicked neglect of duty in providing means for purifying the soil through proper drainage. Modern methods of public sanitation have shown how to hold in check the scourge of Asiatic cholera, yellow fever and such plagues as have their origin in old, filthy and undrained cities. We are told that Hamburg was once as sorely ravaged with cholera as Toulon or Naples, but since the improvement of its drainage and water supply, and enforcement of sanitary law, it is comparatively healthful. It is claimed that Havana is a hotbed of yellow fever because of improper drainage and filthy conditions, and that the city can be made comparatively healthful by the enforcement of proper sanitary laws. These facts lead to the belief that our homes in rural sections may be made more exempt from typhoid fever, diphtheria, tuberculosis and kindred diseases, which are to a certain extent dependent upon filthy conditions for their propagation, when we have applied the teachings of modern science to their purification.

We must appreciate, as is seldom appreciated now, the value of pure water, pure air, thorough drainage for the cellar, the yard and the adjoining land, in order that the soil may be purified and made free from the germs of these deadly diseases. Cleanliness in the home and around it is one of the first requisites for the health of the farmer and family, and when properly attended to, together with the other matters we have mentioned, makes the farm the ideal place for establishing a healthful, happy home for the old and the young, to the influence of which many a business and professional man owes his success in life and the foundation for his health.—National Grange.

## Jingles for Farmers

Solon Smartfellow thinks "he's it"  
In everything a-going;  
He's sure he knows a mighty lot  
Of all that is worth knowing.

But Brainy Worker works away,  
Nor cares what folks are saying;  
He upward climbs to heights sublime,  
And knows his work is paying.

Young Farmer Brag is long of wind,  
And he can blow quite well;  
But people say, "His crops don't fit  
The stories that he tells." M. L. P.

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In ONE  
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RIDING HARROW  
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Not an inch of soil escapes the sharp sloping knives, and these knives cut through to the undersoil, chopping the sod or trash buried by the plow and leaving it buried, instead of dragging it to the surface.

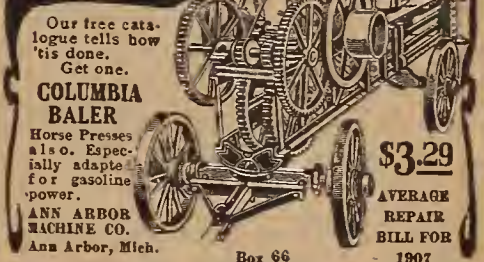
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Dept. No. 249, Cleveland, Ohio.

**Best Rural Mail Box Made**

**The Hessler Mail Box**  
Strong and storm-proof. Made of steel. 18 inches long, 6½ inches diameter. Cover self-closing and self-latching. Signal and brass lock and key. Send for circular.  
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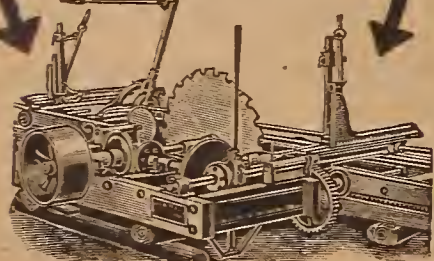
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# Practical Farm Notes

## Preventable Losses on the Farm

IN THESE days of small and diminishing profits there is no room for waste on the farm, yet I venture to state that on far too many farms more or less preventable losses do occur, owing to inattention to small matters. The farmer of to-day, who has to face low prices and severe competition must, if he would be successful, find out the weak spots in his management, and then take advantage of every legitimate means to remedy them without delay.

It is only by adopting businesslike methods in farming that one can hope to detect some of the leakages by which the profits are almost imperceptibly drained away. For this purpose a simple yet accurate system of bookkeeping is absolutely essential. It is not only necessary to keep correct entries of all items of expenditure and income but also to show, at the same time, whether this or that branch of farming is profitable or the reverse. If such a system of bookkeeping has been adopted, then it is possible to see at a glance at the end of the year, when the accounts have been made up, what our labor has cost us, what we have spent in seeds and manures, feeding stuffs, implements, etc., while on the other side of the account we can see exactly what we have received for live stock, corn, dairy produce, poultry, and other things sold off the farm.

A study of such investigating statements is not only interesting, but instructive, and tells us where the shoe pinches and where a saving can be effected without prejudicing the general economy of the farm; advantage should be taken of it.

Implements, machines and tools are valuable assets of the farm, yet how much preventable loss takes place by neglecting to take proper care of them when not in use? It is difficult to conceive anything more wasteful than the all too common practise of allowing valuable wagons, carts, plows, harrows, rollers, etc., and even mowing machines, to be left out in the open, exposed to all the vagaries of our somewhat changeable climate. The deterioration due to fair wear and tear is very small when compared with the ravages of rust and rot which take place when such implements are left thus exposed. Everything of any value should be carefully housed and cared for when not in use. An occasional coat of paint both to ironwork and woodwork is never lost and this can be economically applied during the winter, or on a rainy day when outside work is impossible.

Gates and fences seldom receive that attention which they deserve. A great amount of expense and annoyance would be prevented if a few nails were driven in at the right moment, or a few rails and posts fixed up as soon as a gap in the hedge makes its appearance. Such things are mere trifles if taken in hand at once, but if neglected may lead to bad feeling and even expensive law costs between neighbors, owing to damage done by trespassing stock.

Lack of system is one of the chief causes of loss on the farm. If you will observe a thrifty and successful man you will, in nine cases out of ten, find that he is methodical in arranging his work. Too much system, however, is almost as bad as too little. The best way of doing things should be carefully thought out and general rules adopted and followed. Of course, it may be essential to make changes from time to time as fresh knowledge and new ideas are acquired, but no change should be made hastily and without due and mature deliberation. It is a good plan to have work well in advance, rather than be driven by it. Everything should be at hand as the time arrives for its being done, so that no unnecessary delay takes place. Delays are expensive, as is often proved in harvest time. The old saying, "never put off till to-morrow what can be done to-day," is peculiarly appropriate in all work connected with farming.

A good system will not omit a regular way and time of feeding stock. When stock are fed and watered at regular hours they become accustomed to the time of feeding, and consequently are more contented and thrive better than if fed at different times on each succeeding day.

In the purchase and use of the various feeding stuffs that are now placed on the market, much waste might be prevented if only more attention were paid to their composition and actual feeding value. Food must be judiciously blended and mixed, and too much care and attention

cannot be given to this matter if we wish to be economical and get the best results.

Where artificial manure is used, the wasteful and indiscriminate way in which it is generally purchased and applied is not conducive to economy. No farmer purchasing a horse or other animal would pay the price asked without assuring himself that he was getting full value for his money; yet how many take the trouble to arrive at the true value of an artificial manure at the time of purchase? In the former case experience has taught him to value the animal by certain qualities it possesses, but in the latter case he far too often is unable to calculate from the analysis, which should always be demanded, the true worth of the fertilizer, and he pays the price and trusts to luck for good results.

Farm-yard manure is a valuable by-product of the farm, yet far too much avoidable waste is allowed to take place by the careless way in which it is stored.

All too often the dark-colored liquid, which is the very essence of plant food, is allowed to trickle away from the badly kept manure heap to the drain. This liquid is rich in nitrogen, potash and phosphoric acid, and every care should be taken to prevent its escape from the heap.

Many other losses to the farm might be mentioned, but sufficient has been said to awaken thought, or perhaps indicate to some farmer with a desire to improve his methods the importance of paying attention to details. The farmer of to-day has many hostile forces arrayed against him, and if he means to widen his margin of profit he must develop his own latent talents, for in this direction lies, did he but know it, his true wealth.

W. R. GILBERT.

## Maintaining and Improving Soil Fertility

IN THE important investigations which have been conducted in recent years on practical methods of maintaining and improving soil fertility, one of the most significant results has been the increasing importance which has been given to the use of farm-yard manure. The investigations of Hopkins, of Illinois, Thorne, of Ohio, and of Miller, of Missouri, all agree in the conclusion that farm-yard manure must now and hereafter be the main reliance of the American farmer in keeping up and improving the productivity of his soil. Doctor Hopkins says: "Farm manure always has been, and without doubt always will be, the principal material used in maintaining the fertility of the soil." Director Thorne, as a result of twenty years of careful experimentation with commercial fertilizers and farm manure, concludes that "it is possible to bring up the rate of production of a run-down soil to a point exceeding that of its virgin condition, by the intelligent use of commercial fertilizers, but the same results may be obtained more certainly, and at a very much smaller cost, by the production and well-improved use of animal manure."

What is the actual practical value of a ton of farm-yard manure produced on the average farm? In asking this question I am not asking for the chemist's theoretical value, as compared with commercial fertilizers, but the actual cash returns in bushels of corn or wheat resulting from the application of a ton of the average manure produced on an average farm.

There are two methods of estimating farm-yard manure values. The first one is the chemist's method, and may not be the correct statement of the actual cash value of this material to the average farmer. The other, and by far the more practical method of determining manure values, is by actually applying the manure to an acre of land, and compare the increased yield with that on the same land untreated. This latter method has been employed by the Ohio Experiment Station through a period of eighteen years. The results secured by this station are of inestimable value to the farmers of the Middle West.

As a result of eighteen years' careful experiment the Ohio Experiment Station has determined that the value of a ton of farm-yard manure from cattle, registered in the cash value of increased crops produced, is \$2.27 a ton. The same station has also determined, by careful experiment, that the manure produced by a thousand-pound steer during a six months' feeding period will amount to three and a half tons, which, at \$2.27 a ton, is worth \$7.95.

A wise farm economy requires that every bushel of grain and every pound

of hay shall be fed to animals. The resulting manure under good methods of farm management will return eighty per cent of the original fertilizer value of the foods to the soils. The manure thus returned to the land, together with the natural disintegration of the soil and with possibly a small application of mineral fertilizers with a rational rotation of crops, will unquestionably increase the productiveness of ninety per cent of the soils of the Middle West. There is, therefore, ample justification for the feeding of all crops grown on the farm to some kind of farm animals from the standpoint of soil fertility alone.—Kansas Farmer.

## Agricultural News-Notes

In the production of wool, Australia leads, and is closely followed by Argentina and the United States.

The largest apple crops in the New England states during the past five years were those of 1904 and 1907.

The hay crop of 1908 amounted to 67,743,000 tons. It is the largest on record. The 1907 crop was 63,677,000 tons.

The production of one hundred and forty thousand pounds of first-class cigar-leaf tobacco near Sac City in southern Iowa is attracting much attention.

The attendance at the New York State Fair this year exceeded that of last year by 32,157. This indicates a flourishing condition of rural affairs in that state.

The center of the sweet-potato industry in New Jersey is at Swedesboro. It is expected that over fifty thousand barrels will be shipped from that place this fall.

If farmers will organize and co-operate they may be able to control production, but will not be able to control prices, as this will depend upon the demand.

The potato crop of 1908 is large in both Maine and Colorado, but very materially lighter elsewhere, so that prices are likely to remain firm, and possibly slightly higher.

The United States consul at Dublin reports that the annual average yield of milk per cow in Ireland ranges from four hundred to four hundred and fifty gallons.

The strawberry crop of Great Britain in 1908 was the largest one in the past ten years. The plants have to be covered with nets to prevent the birds from eating the entire crop.

Minneapolis is now the great barley center, and it is there that the barley prices of the world are fixed. It is expected that this year's receipts will reach twenty-five million bushels.

The conclusion of a series of experiments at the California Experiment Station shows that beet sugar and cane sugar give equally satisfactory results for canning fruits and for preserves.

The raising of fruit in Cuba is becoming nearly as general as the raising of sugar and tobacco. During the past season more than one million five hundred thousand crates of pineapples were handled in Havana.

The Pacific sugar factory at Visalia, California, closed for the season September 10th. Four dollars and fifty cents a ton was paid for beets testing fifteen per cent, and thirty cents for each additional one per cent.

Michigan is now producing all the sugar it needs, the value of the product amounting to nine million dollars. This industry, which enables the people to keep this amount within the state, is as yet hardly ten years old.

State legislatures that meet this winter should be given to understand that the people, farmers especially, want good roads, advanced public schools and a positive beginning of the promotion of forestry by seconding with liberal appropriations the work now in progress by the national government.

The Maryland Agricultural College, which is located near Washington, D. C., now owns a railway car which is being used for traveling school and lecture work on agricultural topics. A three-day stop is usually made at each important station on the road. The plan is working satisfactorily.

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# Practical Farm Notes

## Making It Up to Father

"YES, Billy used to say a good many times, 'I'll make it up to father if I live long enough.' And he is doing it. I'm satisfied. Makes a man glad he is alive, just to know his boy is coming out all right!"

We sat on the stone wall, with the sunshine glinting across the meadows and the pastures and turning into pictures of sweetest beauty the farmhouse with its neighborly buildings beyond. The mist in the father's eyes showed me that he had the warm feeling in his heart which gives the warrant of a happiness passing all understanding. I could say nothing for a moment. What could a man say, when his friend's thoughts were so full of good things that he knew no way to express them? So I just sat still and waited.

"Billy was all right in wanting to go away to school. Mother and I wanted him to do that. We never had anything much of an education. Too much hard work on the farm when we were young for us to go to school. Winter was the only time boys could be spared in those days. You know how that was. But we did want Billy to know more than we do."

Dear old man, with a heart as big as an ox! Thousands of him all over the country, too. Men, and women, too, who are willing to work hard and go with poor clothes, if they can only give their Billy and Susie a better chance to know what the world has to give them in the line of an education. When the time comes for giving out crowns, these self-sacrificing fathers and mothers will surely have jewels to wear through all eternity!

"Billy turned his chance into good, too. That was the best of it. Seems to me it would have broken our hearts if he had turned out like some boys I know of. There was that neighbor boy that got to running wild after he went away to school. Good boy, but he lost his head. Joined some society they had down there, and got to gambling. Spent all he could get, and just about drained his father's pocketbook into the bargain. When he was clear out, he would write home some wonderful story about the expenses of the last year or two, and they would scrimp a little harder and send him what he needed—or said he needed—and so they kept it up clear through."

"But Billy was as straight as a dollar. He knew just how it was back here on the farm, and he dug in just as hard as we did, only in a different way. The minute he was out on Friday, away he would hustle to get here to help about the farm work! It did us so much good to have him come and to think that he wanted to help that way."

"I'll make it all up to you and mother," he would say; but that was all right. We did not ask it. All we wanted was to give our boy a better chance."

"And when he thought it would help him to finish up with a year or two at the agricultural college, we hadn't a word to say against it. 'We can tough it through another year, can't we, mother?' I said when Billy proposed it, though for the life of me I couldn't see then what a boy could learn in school about farming. I have learned better about that since. The farm school is all right. Some theory about it, but I begin to think there is a place for theory even on the farm."

My friend waited, and looked out over the fine, well-kept fields Billy had worked out. It looked good to him, without doubt.

"Folks said we would educate Billy into the city, but we didn't. He wasn't that kind. His heart was back here on the farm, and there Billy goes now. Happy, isn't he?"

Up from the barn, standing on an empty rigging, Billy came, bound for the field after another load of the fine golden grain he had grown with his own hands. Whistling a merry tune, he caught sight of father sitting there on the wall with me, and he waved a hand to us. The father waved back again, and called out, "Hello, Billy!"

"He didn't hear me, of course. Too far; but it's all right. He knows and I know, so that makes it all right!"

"So Billy's making it up to me. Of course I never expect to get the money back; don't want it. But money isn't the only thing. Just to have Billy here, so that we can lean on him when we are getting over the peak where the sun slants toward the west—that's what makes us feel so good."

Do you wonder at that old man's happiness? To know that his boy "has turned out well;" that he has come back

to lift the burdens at a time when they are beginning to rest heavy on the shoulders of the old folks; and best of all, to feel that through it all shines the sunshine of love, love for father and mother and love for the farm?

There is something fine about that sort of an education. I know there are still some who say a farmer is a fool for sending his boys and girls away to school. That may be so in some few cases. It depends on what is in the boy and the girl. A father and mother should understand what is in their children before they take chances of that sort. Can they be trusted away? These are trying times in the school life of our country. No doubt about that. More boys than one have lost their balance and gone over the dam in school. But it does not work that way with boys like Billy. On the contrary, education brings greater blessings in the way of added knowledge of the great world we live in and increased ability to do things which will count.

Billy is a better farmer than he would have been if he had not spent those few years away at school. And now he is "making it up to father." Grand, isn't it?

EDGAR L. VINCENT.

## Buying a Run-Down Farm

JUST a few days ago a young man of about twenty-five called at my office to have a conversation with me about buying a farm which was rather run down.

He also asked me if I thought that the land was of such quality that under the right kind of treatment it could be made good land. He also asked me what branch of farming I would recommend for the best advantage of the farm. He said that he had enough money to pay for this farm, but that he could not buy an improved farm and pay for it now, and was just a little afraid to try going into debt, as his experience in farming was rather limited.

Seeing that this man was really interested in farming, his plan appealed to me most strongly. I thought that this was as good an opportunity for him to learn how to build up and maintain the fertility of the soil as he would likely ever have, and if he mastered the building up of the land, without being in debt for it, he would have a good farm; however, I thought it best not to be too radical with him about the matter, so I advised him to try it. As to the branch of farming that was best suited to the farm, I told him that it would depend to a great extent on him.

As it was not possible at the present time to make a grain farm out of it, he said that he was thinking of trying a few dairy cows, a few hogs, and also some fruit and berries. This idea I thought was a very good one, therefore I told him that I did not see how he could do better. I also told him that I always liked to have several strings to my bow, and that the addition of just a few good sheep would do much toward bringing up some of the land which was grown up with wild growth, as they would clear that all away and at the same time make money out of it.

I told this young man that by taking a few good cows and giving them the proper treatment, and saving all the manure, both liquid and solid, and applying it to his land, and by raising some legumes and turning them under to supply the needed nitrogen and humus, also pasturing down such crops as cow peas with his hogs, he ought to be able within some few years to make a good farm out of it. I told him that it would mean that he must work and study, and not get the idea that when he had learned just a little that he knew it all; he would, or at least could, learn something every day. Some things might not be so hard to learn, while others would seem very difficult to master, but it just took constant study and watchfulness, never neglecting the little details that were all around, as they sometimes were the difference between profit and loss.

Now, I said to this young man: You have my opinion of this matter, but you yourself must work it out, no one can do it for you. If you are determined to make a success, you are almost sure to, but if you are in doubt about the matter, it will be much harder. I would say study yourself, and if you decide to make the deal, give it your best attention, and the chances are, I think, in your favor.

There may be other young men in almost the same condition, and I always like to give them a word of encouragement if it is possible; it may be the means of making good farmers out of them.

R. B. RUSHING.

## New Saws and Fresh Filings

A long dry spell often spells failure.

A cloud of dust cannot stand before a cloud of rain.

To keep up with progress a man must put in all day at it.

The farmer puts money in his purse by putting manure on his land.

The horse's neckwear should be such that it will not wear the neck.

The paint of the house often indicates the atmosphere to be found inside.

The man who borrows trouble as a rule has to go off his own farm to find it.

Another strange paradox seems to be that when the price is high the crop is short.

The old proverb, "There is nothing new under the sun," has no reference to farming.

The rooster's crowing sounds the most musical and is the most welcome in the early morning.

Did it ever strike you, dear farmer, that the little shower you had one day last spring, when everything was thirsty, was a billion-dollar shower.

A leaky roof means that there is something wrong with the house when it rains. It also means that there is something wrong with the man who lives in the house.

In the past the young men and young women have been educated away from farm life, while now it seems they are drifting back to farm life without much education in that direction.

The county officers who own automobiles do not, for reasons easily guessed, make their campaign trips about the county in their machine. The farmers, however, who are fortunate enough to own autos are not ashamed to ride about in them—whether in the city or in the country—all the year.

The farmers' institute and educational rally is a red-letter day for the county. In one of these rallies in the South recently the audience was composed of over a thousand people, including farmers, teachers, patrons, pupils, merchants, mechanics, preachers and lawyers. A fair sample of the professions interested in the farmer.

WILLIAM J. BURTSCHER.

## IN THE BACK OFFICE



EVERY enterprise that is really worth carrying on requires a big slice of faith and a large supply of courage.

Publishing a farm paper is no exception to the rule. Every once in a while you have got to back up your faith in a certain business step with money and hard work, looking to the future for your returns. That's what we have been doing with FARM AND FIRESIDE for some time. We have been buying the best editorial matter we could find—better than any farm paper has ever felt justified in buying—and we have tried to show you just what value we could give you before we asked you to pay a higher price. That took faith in you and faith in ourselves. Hundreds of letters are coming to us each month which tell us that this faith was justified. We are so firmly convinced now that the FARM AND FIRESIDE family want a farm paper which is made up of the very best that we shall go ahead and arrange for all future issues on a basis which will make FARM AND FIRESIDE a vital power in your home—a power for accomplishment, a power for economy, and a power for entertainment, for without relaxation and entertainment, accomplishment is not long possible.

We shall keep the price of FARM AND FIRESIDE down to the very lowest figure, which careful business management makes practical—so low every number will raise the question in your mind, "How can they give so much for the money?" If we fail to do that, we have only half succeeded. But we won't fail—we have the best of brains, the best of experience and the best of industry on the job.

\* \* \*

## Part III. of Investment of Farm Profits

relating to the Investment of Surplus Income in Sound Securities will appear in the February 25th issue.

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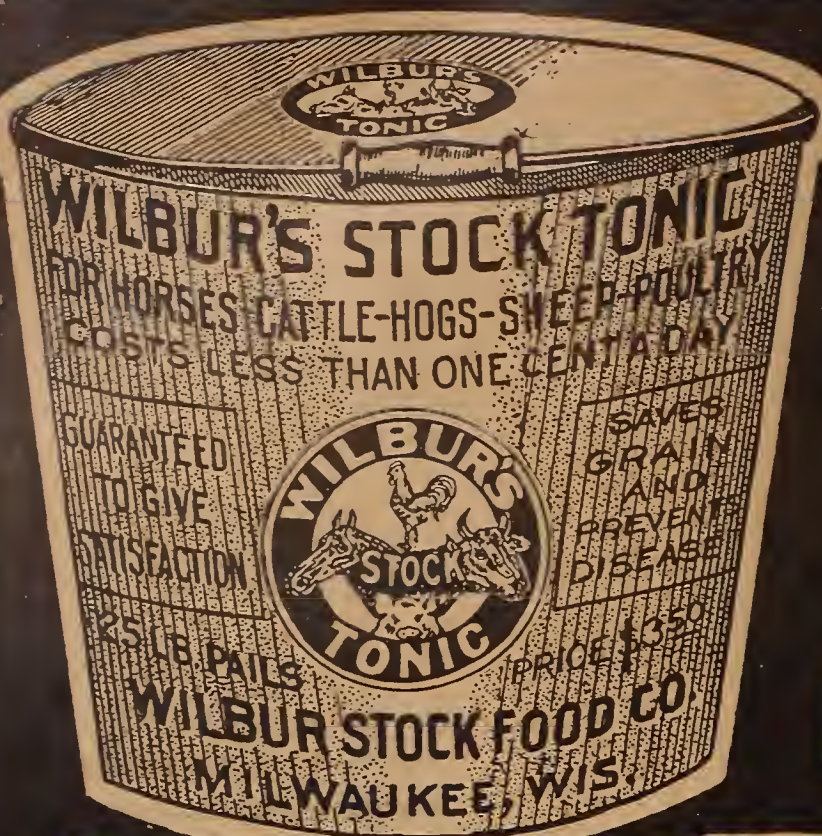
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is the World's Greatest Conditioner and Feed Saver we will Actually give this 25-lb. Pail for Free Trial, where we have no Agent, to Every Reader of this Paper who fills out and mails to us the Coupon shown below. (You can also get free a N. Y. Standard Railroad Watch)

### WHAT WILBUR'S STOCK TONIC IS

Nearly a quarter of a century's actual experience has proven beyond all doubt that Wilbur's Tonic is a money-maker for feeders. WE KNOW THIS. It has been PROVEN to us thousands upon thousands of times in the most forceful manner. We want to convince YOU and are willing to do it AT OUR OWN RISK.

You know the value of the pasture for any kind of stock; how it keeps the animal in good condition—nature's own way of doing it. There is no argument about the value of the pasture, but it does not last the year 'round. We prepare a tonic which, mixed with grain and fed to stock, furnishes in stall or feed box, in the proper proportion, the ingredients of pasture diet, invigorates and fattens stock at small enough cost to make the tonic a money-making investment for the owner of one cow, horse, hog or sheep, and a proportionately larger one for the owner of thousands of head.

### FOR COWS

You know when the pasturage goes down in the fall, the milk goes, the butter goes, the flavor goes until all are shortest when the price is highest. Wilbur's Tonic invigorates cows; it supplies the needed roots, barks and leaves of the pasture, sustains the flow of milk, and color, quantity and flavor of the butter. Take a cow right off the pasture, feed her Wilbur's Tonic in the stall and she will show very little loss of milk, and one cent's worth of Tonic per day saves one dollar's worth of grain per month.

### FOR HORSES

Wilbur's Tonic builds up run-down horses, prevents colic and keeps them in good appetite. It keeps the bowels loose, water clear, blood cool and in a healthy condition. They are always ready for work. Wilbur's Tonic makes them relish their food, keeps the hair smooth and sleek and prevents that rough looking coat. It is a pure vegetable food, positively prevents disease, and makes horses strong, large and full of life. Wilbur's Tonic should be fed mares while they are suckling the colt and mixed with the colt's grain while weaning. It will prevent scour and keep them healthy and growing. Stallions should be fed Wilbur's Stock Tonic during the standing

season every day. When out of the standing season, feed Wilbur's Tonic two or three times a week to keep them regular and healthy.

### FOR HOGS

Hogs, you know are the most susceptible animals to contagious disease. But you know, too, if they escape contagion they are kept cheaper than any other kind of stock. If you keep your hogs healthy they can resist contagion, will fatten quickly and cheaply. If they get sick and refuse to eat you know how quickly they will die. Nothing will save them; medicine is useless. To keep them healthy you must feed them something they will eat, and something that will satisfy the demands of their systems. We believe that there is only one thing in the world that will do this, and that is Wilbur's Tonic.

### FOR STEERS AND CALVES

One ounce of food fed with grain to the steers when fattening for market will put flesh on them and save you money on grain. A healthy animal wastes no food. It is all transformed into flesh. For calves you are raising or ones you are fattening for veal, you can obtain the most wonderful results by using one-half measure of Wilbur's Tonic with one pint of ground oats or corn meal.

### FOR POULTRY

Wilbur's Stock Tonic is an egg maker and a fat maker which will not only force more profit from the poultry yard but will also prevent disease and save birds. It is a sure preventive for cholera, gapes, pip, roup, indigestion, diarrhoea, apoplexy, and all other poultry diseases. For little chicks it has no equal and produces large, heavy birds.

### PREVENTS ABORTION

By counteracting colds, and soothing the nerves while the mother is in a delicate condition, Wilbur's Stock Tonic PREVENTS ABORTION and saves for the breeder at least one-half more of his increase. Wilbur's Stock Tonic fed in small quantities to young animals, will make them grow large, strong and fat.

**REFERENCE:** 25 years of success in business. Any Bank in America. Any Mercantile Agency in America. Any Agric. Paper in America.

### FULL DESCRIPTION OF THE GUARANTEED N. Y. STANDARD WATCH

We will give away 10,000 of these railroad watches at once—fill out free pail coupon and mail it today—we will also send you full particulars of great N. Y. Standard Watch Offer.

The word "Standard" on the face of the Watch is a positive guarantee that both case and movement are perfect in every detail. It is a large 3 oz. stem-wind and set open face watch, jointed screw back and heavy beveled crystal. Note the beautiful "Engine" design engraved on the back. The watch contains seven fine jewels and is a handsomely finished time piece in every particular.

### —READ WHAT OTHERS SAY—

Nauvoo, Alta.  
Wilbur Stock Food Co., Milwaukee, Wis.  
Dear Sirs:—I received the watch in perfect condition. I find it to keep correct time. I think it a grand present. Please accept my warmest appreciation of same. Many thanks to you. With kindest regards,  
C. M. D. WILSON

Wilbur Stock Food Co., Milwaukee, Wis.  
Gentlemen:—I received the Stock Tonic O. K., and wish to thank you for your promptness in filling my order. I can say for Wilbur's Stock Tonic that it is the greatest tonic for stock I have ever used, and am very proud of it. I will never be without Wilbur's Tonic.  
I also want to thank you very kindly for the watch you sent me as a premium. I find it to be all O. K.  
Iva, S. C., R. F. D. No. 3

Paris, Ark.  
Wilbur Stock Food Co., Milwaukee, Wis.  
Kind Sirs:—I am well pleased with watch received from you. I am still feeding your Stock Tonic and think it O. K. I will be pleased to speak a good word for you and your tonic. You have dealt honestly with me, done just exactly as you agreed to in every way. Very truly your friend,  
S. B. SHIRLEY

Yours very truly,  
W. W. RICE

### Free Pail Coupon

Wilbur Stock  
Food Company,  
Milwaukee, Wis.  
Department 554

Gentlemen: Please  
send me the 25-lb. pail  
of Wilbur's Stock Tonic  
for free trial as per above  
offer—also explain just  
how I get the guaranteed  
N. Y. Standard Watch free  
of charge.

I own.....Horses.....Cattle  
.....Hogs.....Sheep.....Poultry

My name is .....

P. O. .... R. F. D. ....

Freight Sta. .... State .....



**WILBUR STOCK FOOD CO.  
554 HURON ST. MILWAUKEE WIS.**





Vol. XXXII. No. 10

Springfield, Ohio, February 25, 1909

Terms { 1 Year, 24 Numbers, 35 Cents  
4 Years, 96 Numbers, \$1.00

## Water Power on the Farm

**T**HE only obstruction to universally installed individual water-power plants on the farm is that not every farm is blessed with running water to furnish the power. But there are thousands of farms in the United States which have running water that can be harnessed and made to work.

The government has been taking a census of the available water power in the Union, and a report will be issued in the course of a few months showing that there is at present going to waste something over fifty million horse power that might be developed from the streams and falls of the country, exclusive of Niagara. Some of this, of course, is available to the farms that are near the streams entering into the calculations, but little, if any, account is taken of the minor streams, the babbling brooks and rapid-flowing creeks that run through thousands of farms unintercepted on their idle way to the sea.

It does not require the thunderous rush and swirl of a Niagara to drive a turbine large enough to furnish power for the use of a farm. The most innocent-looking, spring-fed brooklet having the proper fall will be ample to serve the purpose of meeting every power requirement of the average farm, providing, of course, that it can be suitably dammed and a sufficient head given to the penned-up water in the reservoir. From three to six feet will give a working head of water to drive a turbine that will furnish from fifteen to thirty horse power through an electrical generator.

On hundreds of farms with which the writer is acquainted in a number of

the cost of oil for the bearings and the renewal of brushes (which are cheap) on the generator once a year.

The main expense, where the work is done by contract or by specially hired labor, is that of grading, of excavating and filling; and the farmer is at an advantage in this, that he often has idle teams and labor that could not be better employed during the "slack" seasons, when most, if not all, of this work may be done. The cost of concrete for the dam may be largely eliminated by the use of timbers and plank in its construction, merely using enough concrete in which to embed the timbers and cover the planking, to protect from decay. In some sections where small timber is available, and in some cases desirable to remove from the land, the dam may be built of logs very cheaply and substantially.

The gasoline engine was probably the pioneer in furnishing light power for the farm; yet it has been conclusively proved

develop from thirty to two hundred horse power. It requires only a small flow of water, a few hundred cubic feet per minute at ordinary heads, to develop twenty to thirty horse power, and this would be ordinarily sufficient for a number of farms, since it could be arranged that each farm would do its heavy work, such as grinding, shredding, cutting, etc., at certain different times, while the electric lighting of the buildings at night and the lighter work during the day could go on simultaneously. A motor of one fourth to one half horse power will drive a cream separator and run the dairy machines, so that forty farms could readily handle their dairy work at the same hour, even with the development of twenty-horse power. Since the electric current may be carried on overhead wires for miles, and the starting and stopping of the power plant may be made automatic, and the oil cups for bearings furnished large enough to hold a supply for a number of days, such a plant would run prac-

original expense of establishing a head of water and installing the power plant; and this does not greatly exceed the cost of portable powers, which are a constant and heavy expense for fuel in operating, and that give more or less trouble in getting out of running order, requiring, at the same time, the care and attention of an operator. Many small

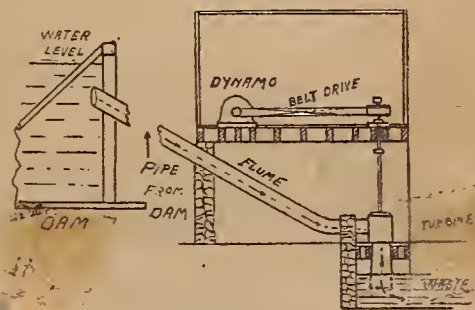


Fig. 3—Water-Power Plant With Good Head of Water

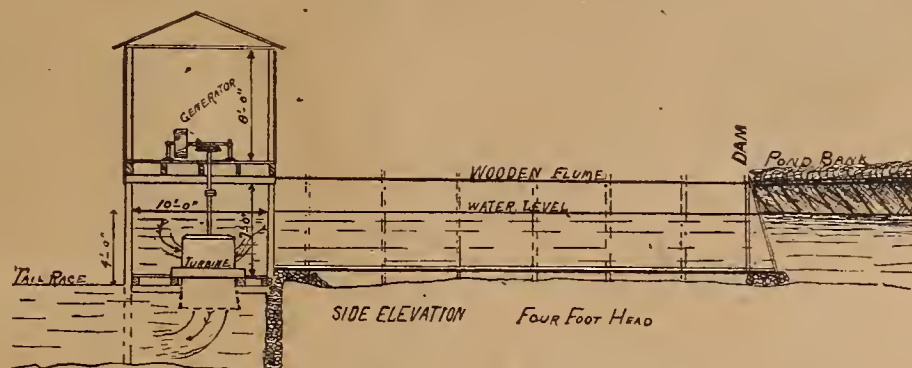


Fig. 1—Side Elevation of Water-Power Plant

by farm water-power plants recently installed that where small, even very small, water powers are available the gasoline engine is not to be compared to them in the matter of economy, practicability and perfect convenience, to say nothing of the matter of care and operation of the engine, or the facility with which the electric power from the turbine dynamo may be transmitted to various buildings and points on the farm for use at the same time. Where power is needed only at infrequent intervals for some one or two purposes, and where water power is not available, it is the most important factor in farm power; but where there is water power at hand, it will pay to develop it as a matter of economy and convenience.

Co-operation among farmers is becoming more general and practical because of its mutual helpfulness and convenience, and its application in the development and use of water power would prove an advance step that would solve some puzzling farm problems.

Throughout the agricultural sections there are hundreds of falls, of unutilized dams and abandoned mill sites, and other hundreds of sizable streams, which could readily be put to profitable use either by individual private owners or groups of owners. There are groups of large farms, and small ones, too, that could advantageously co-operate in installing and using a water-power plant established on such power sites, where it would be easy to

tically without attention, and could be located at long distances from the community of farms using the power.

This idea is merely an expansion of the farmer's telephone-line idea, and it is quite, if not more, feasible and practical. If not considered as a corporate investment, and as such it would pay large dividends in money saved as well as earned, it would be equally desirable and valuable as a local convenience. For with a plant of from twenty to forty, or fifty if required, horse power, enough power would be furnished to the individual farm motors to do all the miscellaneous sawing, grinding, cutting, pumping, thrashing, husking, shredding, separating, elevating, ensilage cutting, baling and other motor work of a large neighborhood or community, as well as furnishing electric lights and heat for the farmhouses. In one instance in the writer's knowledge an ordinary-sized electric heater takes the place of two large "base-burning" coal stoves and heats two large rooms, fourteen by sixteen feet, easily at seventy-five degrees when the thermometer is at zero, and with a current supplied by water power. The coal bill is eliminated here and the heating of the house, upstairs and down, costs practically nothing, since it is simply incidental to the main uses of the current that furnishes power for the heavy work. So also is the electric lighting of the buildings—house, stables and dairy.

The only cost worth considering is the

dynamos, driven by the water turbine, now in use, run year in and out without stopping, with practically no attention or expense.

Certainly the water-power scheme in connection with electric transmission is worth development in thousands of cases where conditions are reasonably favorable.

The housewife, too, should be an enthusiastic advocate of its application, for a tiny motor of a fractional horse power conveniently placed will lighten many of her hardest labors—by running the sewing machine, the churn, the washer, the clothes wringer, the coffee and spice mills, the meat chopper, and provide hot plates for irons, as well as doing the cooking in summer, and winter, too, for that matter.

A small brook may be dammed and a pond or reservoir established that will give a head to drive a turbine. Where the flow is light the reservoir should be made proportionately larger to collect a body of water during the night to run the plant through the day. Additional fall can be secured in some locations by placing the power house farther down the stream and conducting the water down to within a short distance of it by an open wooden flume, as shown in Figs. 1 and 2. A natural pocket or depression may be found along most brooks that will answer for a reservoir by "backing up" the water.

Fig. 1 is a side elevation of a plant located near the dam and connected with an open wooden flume and with a vertical turbine. This is an excellent plan where the fall is from three to six feet with a good supply of water. With this type of turbine the generator or dynamo may be placed overhead and driven by a bevel gear. The foundation of the power house should be of stone or concrete, with heavy timber bases for the turbine and dynamo, to insure steady running without jar or vibration.

Fig. 2 shows the ground plan of a similar plant with a belt-driven dynamo. A breakwater must be built at the power house, as indicated, to prevent ice and debris gathering or lodging across the outlet or tail race. The dam should have

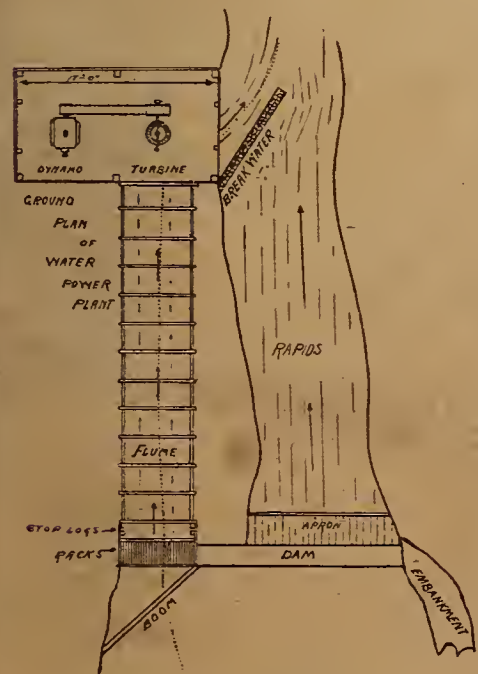


Fig. 2—Ground Plan of Plant

states of uneven topography there are many streams with volume and fall sufficient to drive turbines of from fifty to two hundred horse power, and where the power plants could be installed at relatively small expense. And the first expense is practically the only expense in generations to come, except one counts

The next number will be the greatest number of Farm and Fireside ever issued



an apron of concrete or planks protected with concrete, to prevent wearing and washing by the flow over the spillway. A heavy boom is placed across the entrance to the racks, to guard against floating rubbish, and close-barred racks must be built at the entrance to the flume, to catch leaves and small stuff that might clog the wheel. A heavy gate or stop log is set inside the racks, to regulate the flow of water or to cut it off entirely.

Where there is the opportunity to get a good head of water, the plant and connection may be cheaply built, as shown in Fig. 3. The flume in this case may be of sewer pipe of the proper size, or a square wooden flume heavily coated with some wood preservative may be used instead. This drawing shows a vertical turbine with a direct belt drive, which is cheaper than the bevel gear. With the closed-flume arrangement the power house may be located at any reasonable distance from the dam or head of water.

The larger the flow and the greater the head of water, the smaller the turbine required to produce a given horse power; the less the flow and the lower the head of water, the larger the wheel needed. That is, where the indicated flow and head would normally produce ten-horse power with a wheel of that capacity, a larger wheel would produce from fifteen to twenty horse power.

The cost of turbines runs about one hundred and twenty-five dollars for ten-horse power, one hundred and fifty dollars for twenty; two hundred for a thirty-horse power, with proportionate prices for intermediate powers. Motors cost about twenty-five to thirty dollars for one-fourth-horse power, forty dollars for one half, forty-five dollars for one; seventy-five dollars for two, one hundred dollars for five, one hundred and seventy-five dollars for ten, two hundred dollars for fifteen and two hundred and seventy-five dollars for a twenty-horse power. A ten-horse power will make a plaything of an ordinary grain-thrashing machine, and one to three horse power is all that would be required for most other machines used on the farm, with one-half-horse power in the dairy and one-fourth-horse power in the house. By the use of shafting all of the cutting and grinding and repair-shop tools may be run with one motor.

The wires for transmission of power, and poles to carry them, will depend on the amount of current to be carried and the distance from the plant to the point of use.

R. M. WINANS.

## The Country Life Commission

PRESIDENT ROOSEVELT'S appointment of a commission to investigate the condition of country life in the United States has brought out no little jest and jealousy on the part of sundry editors and contributors in the agricultural press at large. Doubtless nine tenths of such contributions are characterized by a greater or less extent by burlesque and piquancy. Almost with one accord these writers agree in claiming that the farmer has taken care of himself, that he is all competent to do so, and that he will come out all right without the assistance of the President.

Most of these ironical letters have come from those who have frequently expressed ideas on the very subjects referred to by the President's commission. If one man finds it advisable to publish his ideas on the subject of the betterment of farm life, is there anything ludicrous in the President's appointment of a committee to make a systematic canvass of every man's ideas on that very subject, and to have the consensus of opinion published in the report of such committee?

At the Delaware County, Ohio, Farmers' Institute a committee of five competent farmers was appointed to make a report on this subject before the institute. Their concise discussion of the sundry items designated by the "Country Life Commission" was such as to lead the farmer to a more stable appreciation of his advantages and to a keener realization of his necessity for improvement. When thousands of such reports have been collected, representing every status of country life, a publication edited from such data ought to be infinitely more valuable than the sporadic notions of a few.

President Roosevelt has appointed similar commissions to investigate other phases of American life; it seems to be his method of bringing such matters to the more careful and systematic attention of the American people. The writer is one of a few, at least, who doesn't see any joke in the Country Life Commission.

GEO. P. WILLIAMS.

If you want to spend your spare time saving money you should join the FARM AND FIRESIDE Million Club. It means money in your pocket from the very day you join. Write for information, and our Big Reward List, containing three hundred illustrations.

## An Easily Made Concrete-Block Machine

UPON every farm there is use for a number of hollow, concrete building blocks in the construction of verandas, foundation walls for buildings, or even the entire building. The concrete building block serves as a cheap and everlasting building material, one that is fire proof, frost proof and always ready to use.

In the illustration of the simple machine described you will note that the main part of the mold is constructed of four boards; those for the sides are eight by twenty-two inches and one inch thick (you require two of these), and for the two ends cut two boards eight by eight inches. To make the hollow in the block, cut two four-by-four pieces twenty inches long, also two pieces eight inches long; saw with a square miter at the corners, so they will be exactly eight by twenty inches when placed together, outside measurements.

Now place the four-by-four pieces in a vise and plane off two corners until they are half-round; smooth them up and plane down until they are exactly four inches wide and two and one half inches thick. Three-by-four-inch lumber can be used, but best results are secured by planing down the larger size to the required thickness.

Nail these pieces in the center of the two sides and ends of the machine, as shown in the illustration. This leaves two inches above and below the oval strips on the sides and ends of the mold.

As the sides of the mold overlap the ends, the width of same, it will be necessary to set the oval strips on the sides in one inch from each end when nailing to the sides of the mold.

The sides and ends of the mold are now fastened together with hinges at three corners, so they will fold back, away from the completed work, as illustrated. The fourth corner is fitted with a hook and eyelet, which is hooked when the block is being molded and then unhooked and the mold folded back from the work, thus avoiding injuring the block while it is "green."

The mold, or machine, is set upon a "pallet," or a piece of board the size of the machine or a trifle larger. This is placed level on the ground and forms the bottom of the mold. After the block is molded, the completed work is left on the "pallet" to dry. You do not have to move it, as you fold the machine back and leave the work as molded to dry. This avoids all danger of breakage, as even an experienced workman will injure "green" concrete in moving it. Until dry and cured, concrete has no more strength than wet sand, and while you must have a "pallet," or bottom board, for each block you mold in a day, yet by not moving the work while drying you produce more and better work.

The block illustrated has practically the same hollow or "dead air" space as any block made; it has no core, consequently can be manufactured with greater ease and rapidity, and you can tamp the concrete into the mold tightly, thus producing a block of greater density, which makes it not only stronger and more durable, but also more apt to resist the penetration of moisture.

The hollow space on the four sides of the block makes it easier to handle and lay in the wall.

This block is molded face down, which is a great advantage when you desire to use a richer mixture of mortar for

and then wet to the consistency of damp sand; while in this state pack into the mold, tamping it down as hard as possible.

After the blocks are molded, they should be left on the "pallet" for at least forty-eight hours; they may then be piled up to finish "curing." During this time they should be wet several times, so as to retard the drying process if the weather is hot and dry, for when concrete "cures" or hardens too fast it is very liable to crumble; again, when it requires from two to three weeks for the final hardening process, it is strong and everlasting, constantly growing stronger with age.

It is best, after the blocks have been on the "pallets" about forty-eight hours, to pile them up where the wind may reach them freely until ready to use. This gives you the "pallets" to use again, and will produce blocks that cannot help but be a success if you have followed the instructions given.

In case the boards which you have used for the machine and "pallets" are inclined to warp, brace them with cleats on the outside. This is always best when building, as the moisture is apt to warp the material used for the machine if not protected.

You can also produce better work and your mold will not be so liable to warp if you coat it with two or three good coats of shellac before using.

Any farmer or home builder can, with this simple machine, which he can construct in a few hours at slight cost, produce a most excellent hollow concrete block and one that will be easily laid in the wall and will give the best satisfaction at the minimum of expense.

A. A. HOUGHTON.

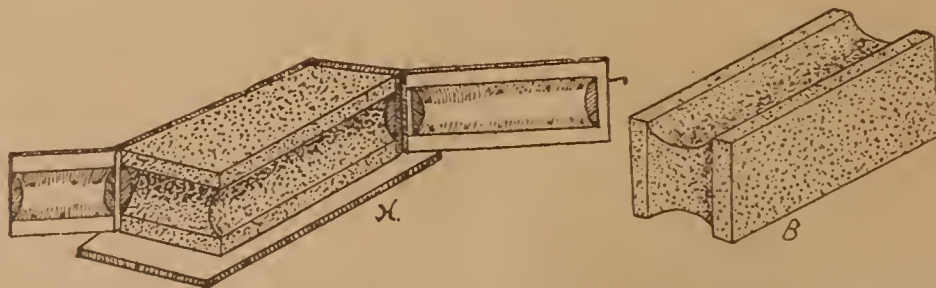
## Some Queries Answered

A RESIDENT of Clark County, Ohio, has been exercising his mind some, and he asks us to tell him what we think of his cogitations. He thinks that railway companies should be compelled to use some kind of a machine for burning what is called a fire guard, a wide space on each side of their roads, to prevent the frequent fires started by the engines.

Such a machine could be used in comparatively few sections, and has been proved impractical. Farmers whose land adjoins railways should aim to grow such crops along these railways as are easily protected from fires. Not many farmers would plant potatoes in a creek bottom that is likely to be overflowed half a dozen times during the summer, yet hundreds will grow crops of hay along the railways, stack the hay in the field and leave a nice growth of aftermath to lead a fire to the stacks. They will stack wheat and oats near the roads and make no attempt to protect the stacks against fire. No good farmer does this, but the hard-up and the happy-go-lucky sorts do.

His plan of having a very small opening at the top of his house well, to prevent trash from getting into it, is very good, but one should also know that no impure water from a distance gets into it and that the drainage of foul surface water is good. The surrounding surface must be clean, free from mud puddles and cesspools, or the water in the well will not be pure.

One of my neighbors has his well fixed very nicely for keeping out earthworms and other insects and trash. It is bricked up in the ordinary way to eight feet of the surface, and from there to two feet above the surface the bricks are laid in



Cement-Block Machine showing the machine and the complete block as molded with the face down, and the block in position as laid in the wall, showing hollow construction without loss of strength.

the face of the block or to color the face of the block. If you desire a panel face to the block, you can easily cut some quarter round, mitering at the corners, so the four pieces will just lay inside the mold; this is not nailed in place, as the concrete will hold it securely. This molding is placed in the bottom of the machine resting on the "pallet," the concrete is tamped in, and when the machine is removed from the block, the molding can be taken out from the concrete, thus leaving a neat panel to the face of the block. Any molding you wish may be employed in the manner described.

The best mixture for this work is one part of cement, two parts of sand and four parts of gravel. Mix while dry,

cement and a perfectly tight wall made. The cover is well made and fits snugly on the top, and not a bug or worm can get into it. After sixteen years' use the bottom was examined and found to be perfectly clean, and the water is always clear. It pays to make the house well safe from trash and insects, yet not one in a hundred is.

As he says, it is a good idea to remove the eggs of the bot fly from the hairs on a horse. I very much doubt that wetting them with kerosene will destroy them, unless the kerosene is quite warm, and then it might remove the hair, also. They may be scraped or clipped off, and when this is done the eggs should be burned.

The man's method of ridding dairy

herds of the little black flies that annoy cattle so much is impractical. Skilful dairymen are not troubled by this pest very much. The cows are brought into a stable that can quickly be darkened, and are sprayed with one of the many fly killers now in common use. This kills the flies that are on them, then the stable is darkened, and milking is done in quietness and peace.

In my own stable I use clear kerosene, because it is easily obtained. I rather think the crude article would be quite as efficient, probably more so, while it would be much cheaper. I use a tin sprayer that cost thirty-five cents, and the greater part of the oil comes out in the form of a mist. I note that it kills some of the flies, while others recover and fly away. Whether these die soon afterward, I am unable to say. The fog or mist produced by the sprayer drives the flies from the stable quickly, and the cow is pestered no more with them while I am milking. I am asked if the fog or mist does not impart a flavor of kerosene to the milk. I have never noticed any such flavor, and others who use the milk have never mentioned it, and some of them are very particular about flavors.

FRED GRUNDY.

## The Solution of the Packing Problem

MUCH fault has recently been found in various markets about the quality of apples sent in barrels from the northern apple regions. Professor Massey wrote me from Maryland that the only apples he could find in his markets as "New York State" fruit were simply a lot of cider apples and rubbish. At one of the last meetings of the Niagara Farmers' Club a member told of having found in a North Carolina city these "New York State" apples that surely were a reproach and discredit to the packer. Other members denied, however, that these apples came from western New York. Willard Hopkins, one of the princes among orchardists, hit the nail squarely on the head by saying that the real cause of the trouble is not so much in the packing as in the production. If we raise good fruit we will have no poor stuff to pack, and good packing comes easy.

President Cornell at the recent meeting of the New York State Fruit Growers' Association, in his annual address, asserted that "we are up to date in methods of production and in harvesting, but we are weak when it comes to packing." This is hardly in line with the true state of affairs, so far as production is concerned. A Hudson River Valley orchardist at the same meeting complained that in his region there was hardly one apple in twenty that was free from worms, and this notwithstanding the use of arsenate of lead. We may as well confess it. The last year's crop of apples all over western New York was about the wormiest lot of fruit that we have had in many years. If we are "up to date" in methods of production we will have as yet much to learn and to improve before we can lay claim to being a full and unqualified success as fruit growers.

As to packing, it is true that few, comparatively, yet pack dishonestly—in other words, either dump a crate of cider apples into the middle of the barrel, or put up a low grade of fruit generally and try to palm it off on the purchaser for A No. 1 fruit. Most of the poor packing, however, is due to the fact that the grower has produced a low quality of fruit all through and has lost his appreciation and measure of the true standard of good fruit. It is so with other fruits and vegetables, too. The first thing we will have to do is to try to produce better stuff. The packing will then solve itself.

T. GREINER.

## For the Farmer to Think About

Habits that are not formed do not have to be broken.

The promise voluntarily given should be voluntarily filled.

Iowa has in the neighborhood of a thousand women who own and manage farms.

Some people are not fools at all. We merely think they are because they are different.

Great men take part in little things—little men seldom have a part in the great ones.

The man who is doing the most good is also doing a little harm and making some mistakes.

When you see that work is beginning to tell on your wife it is time to tell her to let others help.

Do not become discouraged because so many of your experiments are failures. They merely show what not to do, which is just as important to know as what to do.

WILLIAM J. BURTSCHER.





*The Visit of LAFAYETTE to Mount Vernon*  
*August Seventeenth*  
1784

*See Our Special Offers on the Other Side of This Picture*



# How to Obtain the Season's Greatest and Best Flower Offers

Without Cost to You

These beautiful flowers are the finest obtainable. And we guarantee that they WILL BLOOM THIS SEASON OF 1909

## The Five Prettiest Roses (ORDER AS No. 101)

are the ones we have chosen for your collection. Many of these roses when in bloom sell for \$4.00 to \$6.00 a dozen at florists'. Any one of them is worth more than a whole year's subscription to FARM AND FIRESIDE costs, but you can get absolutely without cost all these five plants—the Climbing Meteor, Bright Red Hardy Yellow Rambler, Bright Pink, Pure White—illustrated on this page. See our liberal offers below and opposite.

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1. Send us \$1.00 for FARM AND FIRESIDE four years (96 numbers) and any one collection of flowers, postpaid.
2. Send us 50 cents for your own subscription one year, some friend's subscription for the balance of this year, and any one collection of flowers to you, postpaid. (Get your friend to give you 25 cents for FARM AND FIRESIDE for the rest of 1909. Then your own subscription, a full year, including flowers, will cost you only 25 cents.)
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Of all plants for pot or interior decorations, ferns occupy the place of favor. This collection consists of the leading varieties—Boston, Emerald, Fountain and Asparagus. These varieties frequent by sell for 50 cents each. See our liberal offers above and opposite.

## Guarantee

All of the plants will be large, healthy and well rooted, and will bloom the coming season. We guarantee them to be exactly as described, to arrive in perfect condition, and to give entire satisfaction or your money cheerfully refunded.

The Climbing Meteor Rose—a Bower of Fragrance

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4. Any one collection of flowers will be given for only two subscriptions to FARM AND FIRESIDE at 25 cents each, to run for the balance of the year 1909. One of these may be your own subscription.
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## Six Magnificent Chrysanthemums (ORDER AS No. 102)

The chrysanthemum is the prettiest late autumn and winter flower. Small plants set out in the spring will have formed large plants full of blooming shoots by September. We will send in this collection six large-flowering Japanese varieties, as follows: One Pure White, One Deep Yellow, One Light Yellow, One Light Pink, One Deep Pink, One Beautiful Red. See our liberal offers above and opposite.

## Cultural Directions

Collections must be ordered entire. Accompanying each lot of plants are full directions for planting, care, etc. Please state what month you prefer to have your plants sent to you.

CHRYSANTHEMUMS No. 102

FERNS No. 104

Send All Orders to Flower Department, Farm and Fireside, Springfield, Ohio

Photograph of the Bright Red, Yellow Rambler, Bright Pink and Pure White Roses



# Around the Farm

## Items of Interest and Value to the Progressive Farmer

### Selection and Testing of Seed Corn

IN OBTAINING seed corn from places at a distance it is always best to secure it in the ear, because in this form it can be picked over, judged and all ears that are not suited for planting may be thrown aside, while if it is shelled no such selection can be made.

The selection of seed corn by the farmer from his own crop is generally accomplished in one of three ways: First, by picking out the seed after the corn has been cribbed; second, by selecting the best ears while gathering, and third, by going into the field before harvesting time and selecting the most desirable ears. Of these three ways my experience has shown the last to be the best, because a better selection can be made when that is the only aim in view and when the entire plant, and not simply the ear, can be considered. Whatever the method, more seed than is really needed should be selected, in order that a second "weeding out" of the poorest ears just before planting may still leave enough good seed.

On our farm we have tried still another method for obtaining the best seed corn—namely, to grow it in a special plot of ground. We used the following method: Take any number of selected ears—say fifty, for example—and plant them in fifty separate parallel rows, one ear to the row. This makes it necessary for the plot of ground to be at least fifty corn rows wide, and it should be long enough for the planting of about two thirds of an ear in each row. If possible, this ground should be as far removed from other fields of corn as can be, to prevent outside pollination. To further protect from foreign pollen we have found it a good plan to take the remaining one third of the selected corn and use it to plant a border around the breeding plot. Before the pollen matures every alternate row is detasseled, to prevent self or close pollination; also any stalks in the rest of the rows that are imperfect to a marked degree in any way should be detasseled.

All the seemingly good ears from good stalks, in good position on the stalk, should be gathered from the detasseled rows. Out of all these ears first pick out the best ones for next year's breeding plot. From that remaining the best ears can be selected for next season's seed corn for the main crop.

In regard to the type of ear to select for seed the following points are essential: The main object in view is the production of as large a quantity of grain to the ear as possible; the ear should be cylindrical in shape, about ten inches in length and seven and one half inches in circumference. Both ends should be well filled out with large kernels. The rows of kernels, as well as the kernels themselves, should be closely pressed together, in order that the ear will be compact and solid. Each ear can be readily tested for weight by weighing the entire ear first and then the shelled corn obtained from it. The grain should constitute from eighty-five to ninety per cent of the whole ear. The kernels should be as nearly uniform in size as possible, to insure a good, even stand; they should be wedge shaped.

The vitality of the corn should always be tested. Improper drying and storing away of seed corn very often lowers the vitality of the seed, but if it is thoroughly cured and kept dry no injury is likely to take place. We have found it a very satisfactory method to string the corn and tie it up in the barn, provided it is well covered. In the spring, before planting time, every ear should be tested, especially when there is any doubt as to its vitality. We have a box fixed for this purpose; it is four feet long by three feet wide by six inches deep.

We have bored holes through the sides two inches from the bottom and two and one half inches apart; through these holes we have stretched fine wire, both lengthways and crossways, thus dividing the box into two-and-one-half-inch squares. At one end these rows of squares are numbered; along one side the squares in each row are numbered. When ready to test the corn, we get enough moist, rich dirt to fill the box up even with the wire; next we number the ears to be tested. For example, the first ear is marked ear one, row one; the next, ear two, row one. When we have enough for the first row, the first ear in the second row is marked ear one, row two, and so on. When the

right on the ground, thus saving the labor of hauling.

Experiments have shown that soil of average fertility has enough potash, nitrogen and phosphoric acid to give several hundred grain crops in succession if we can only get them out. By returning to the soil a liberal supply of vegetable matter, humus is formed, and in that we have presented to us the key by which to unlock Nature's storehouse and get for our benefit the agricultural wealth lying dormant therein. Where it is intended to employ green crops as a cheap substitute for farm-yard manure, such legumes as clover, peas, vetches, etc., are the most desirable. While they enrich the surface soil by drawing up mineral

correctness of the following table giving the fertilizing value of plowing down of clover at different stages of development:

Plants, 5 to 7 inches high,	\$21.94 per acre
Plants, 12 to 14 inches high,	34.64 per acre
Plants, blooming,.....	37.06 per acre
Plants, matured,.....	43.96 per acre

This may be very well illustrated by relating the experience of a neighbor. After cutting a field of clover for hay, he allowed sheep to pasture on one half of it, reserving the other part, from which he took a second crop of hay. The following season he noticed his grain crop was decidedly better on the part that had the two crops of hay taken off it. The next year he cut another field for hay; from half the field he took off a second crop, the other side he let mature. He found that between the time of taking off the second crop of hay and the maturing of the other side that the root extent of clover had doubled on the growing crop, and that the increase of nitrogen was as eight to five. The most that the maturing crop of clover loses is the sap, which is only water, while the risk of souring the soil by plowing under at an earlier stage is obviated.

On land intended for grain crops, where green manuring is practised, the plowing should be done at least a month before seeding, for if the land is worked up and sown immediately, the green stuff will not have decayed, but will be heating to such an extent as to prove very detrimental, if not entirely ruinous, to the crop. In the case of hoed crops, however, I have found the opposite course to give very satisfactory returns. The fermentation going on beneath the surface warms up the soil and seems to have a tendency to force a rapid growth very desirable in such crops.

On wet low lands an endeavor to employ green manuring has frequently resulted in failure. Why this system should be beneficial to some soils and not to others is a problem to many. Experience, however, has shown that the full benefit of green crops as manure is only realized where there is sufficient lime in the soil. Calcareous soils, however they have become exhausted, soon have their fertility restored when put under a thorough course of treatment in which green crops at proper intervals are returned to them. J. HUGH MCKENNEY.

### Getting a Stand of Clover

THE common practise of sowing clover with wheat or oats often fails on account of dry, hot weather, which is very apt to come at harvest time. The ripening grain exhausts the moisture in the soil very rapidly, and when it is cut the clover is in poor condition to stand the exposure to the hot sunshine.

I had so much difficulty in getting a stand of clover in the ordinary way that I gave up sowing with grain.

I follow corn with clover, and prepare the ground by cultivation and harrowing in the spring, just before time to sow the clover seed.

The spring of 1908 was so continuously wet that I could not get a chance to cultivate the ground, so after waiting just as long as I could, I sowed the seed on the uncultivated corn ground.

It looked like pretty shabby farming, but it was the best I could do, and it resulted in a good stand

of clover which was not injured by the hot, dry weather.

Some people object to this plan because they say that they lose the use of the land for one season. This is partly true, but I would rather lose the use of the land one year than lose my seed and a crop of clover, too.

My chief object in sowing clover is to get a crop of clover. I can afford to let the land lie idle a short time, better than I can afford to let it permanently lose its fertility. COURT W. RANSLOW.



Two Best Ears

ears are all numbered, take four or five grains from different parts of each ear and plant them in the square with the corresponding number. In this box we can test about two hundred and seventy-five ears at one time. Of course, the box can be larger or smaller, as the case may demand. LOGAN OWEN.

### Green Crops as Fertilizers

WHEN judiciously practised, the plowing under of green crops is a valuable means of restoring, maintaining or increasing soil fertility. According to the writings of Cato, Pliny, Virgil and others, this fact was recognized in the farming operations of the Greeks and Romans before the Christian era. It has,

food from the subsoil, they also possess the power of taking up the free nitrogen from the air in large quantities. A fair crop of clover gathers in its stalks, leaves and roots, in each acre, one hundred and thirty-eight pounds of nitrogen, forty-six pounds of phosphoric acid and one hundred and fifteen pounds of potash. Of course, by this method we lose a crop, but the land is cleaned and in good heart and tilth for succeeding crops.

I have in mind a very successful farmer and institute lecturer who works two farms, the outlying one being nearly a mile from home. It being too far to draw manure to the latter, he keeps up its fertility by plowing in green crops. As an instance, a ten-acre field was sown at the rate of two bushels to the acre



Six Corn Exhibits at the Minnesota Industrial Contest

The Minnesota Industrial Contest, under the direction of the Division of College Extension of the Minnesota Agricultural College, held in St. Paul, December 29, 30 and 31, 1908, was a pronounced success. There were over eight hundred entries and some most excellent exhibits in all classes. About thirty counties have taken up the Industrial Contest work under the supervision of the county superintendents, and between four and five thousand boys and girls have taken part during the year. In the counties the work is under the supervision of the county superintendents. A contest is held in the county, where prizes are subscribed by local business men. Those winning any of the first six places in any of the classes of the county contest may compete in the state contest, where about four hundred cash prizes, amounting to thirteen hundred and fifty dollars, are offered by business men in the Twin Cities.

however, been comparatively recent that scientific data have been available showing conclusively the value of this method or in what cases it should be avoided.

The introduction of the system had for its prime object the improvement of light, sandy soils by incorporating humus and securing a cheap supply of available nitrogen. On such lands little live stock is carried, consequently the supply of farm-yard manure is likely to be somewhat limited. Moreover, there is the advantage of having the fertilizing material

with peas, which on reaching full growth, were plowed in. The land was rolled, cultivated and harrowed thoroughly, after which it was sown to wheat. The following season he thrashed four hundred and twenty bushels of marketable grain that tested sixty-three pounds to the bushel.

A practical question often asked in this connection is: "When should clover or other green crops be plowed to get the best results?" All the information I have been able to gather points to the



# Investment of Farm Profits

## Part III. Investment of Surplus Income in Sound Securities—By Robert W. Martin

THE editor, in his rashness, has asked me to write on the subject of "Investments for Farmers." Now, the first crude and hasty idea which arises in my mind and leaps to my tongue and pen is that an article on "Investments for Farmers" should be no different from an article for any other class of people. But any such opinion very quickly crumbles. For the farmer has made a much more substantial advance in fundamental investments which make for the welfare and content of the individual and the conservatively progressive spirit of the nation than any other important class of citizens. That is, I should say that the first and very best investments for the component units of any class of citizens were a good wife with a good home, and a property which would furnish a fairly reliable and comfortable living for one's self, with an accretion in values, from year to year, which could, at the end, be handed down to one's children and furnish them in turn with the means of a comfortable living. Now see just how much the farmers have in these respects above all other classes of citizens.

### The Good Fortune of Farmers

I know by authority which transcends all statistics that no class of people is so fortunate in their wives as farmers. But I pass on to point out that farmers are also more fortunate according to the United States Census, and also by general knowledge, than those engaged in any other occupation, in the number of homes owned by them, both in actual number and in the proportion of owned homes to those in any other occupation. But beyond this, the farmer has a tangible piece of property which is yielding him his income and which under ordinary conditions should increase in value from year to year, and be worth more when turned over to the children than when it had been acquired, or perhaps in turn inherited, by the father. How different this is from the position of the doctor or lawyer whose tangible property to turn over to his children may perhaps consist only of the shingle or the certificate of a medical degree.

### Investment Wealth of Farmers

The farmer therefore starts, as a rule, to consider the application of his savings from a position of advantage held by no other class of workers in this country. It is the investment of these savings that I have been specifically asked to write about.

In 1900 the values of farm lands and improvements were reported by the United States Census as \$20,514,160,000. The figures of the United States Department of Agriculture, recently issued, place the farm values of only a portion of the yield of farms in 1908—that is, corn, wheat, oats, barley and rye—at \$2,730,000,000. This compares with values in a year so late as 1904 of \$1,955,251,000. It is probably safe to say that these figures, without any allowance for the fact they cover only a very limited portion of the values of the products of the farms in this country, show an increase in values larger than that shown in any other considerable industry.

Now, to my mind, the first and most essential, as well as most profitable and provident, use which a farmer can make of his savings is in the increase of his farm holding and in improvements of one kind or another that will add materially to its value and income-producing capacity.

### Investments in Securities

But I take it that I am expected to address myself primarily to those investments outside of the farm which should attract the farmer's attention. This means, what are the best securities in which a farmer should invest his savings? I should say, the security which should first engage his attention is stock in the local bank or the bank which is located in his nearest market town. However, I do not say that he should put his first investment in the stock of a local bank, but such an investment should have his first and very careful consideration.

There are a number of good reasons against the purchase of bank stock by a farmer. The unfortunately large record of frequently recurring bank failures is the first thing to be adduced. It does not help to say that those failures are altogether unnecessary, and in a sense are as great reflection on the banking officers who preserve the solvency of their own institutions as they are against

the bank officers who fail. Because a bank cannot go very far in its operations without transactions with other institutions, and if all those with which it has connections dealt on business principles, departures from true banking principles by any bank would be checked in their incipency. But this is going beyond our subject.

The double liability of some bank stockholders should also act as a check on investments in their stocks by farmers. It should not, however, entirely prohibit such investments, for stock in a local bank, well managed, should prove the very best kind of a conservative investment. And it is very essential for its welfare and conservative adherence to sound principles that there should be as wide spread a community interest in its control and management as may be feasible. Moreover, such an interest is the first step in the connection of a farmer with outside investment conditions.

### Advise With the Local Banker

If the farmer is going to put his savings in securities, he should not, on any account, do it entirely on his own initiative or on the solicitation of anybody who comes to him to sell him securities, nor solely in answer to any advertisements which he may read in any paper whatever. These may be used as a starting point for investigation. He should have, first of all, the advice and interest of his local banker. Now, this does not say that the local banker is the one best posted to advise him. Unfortunately, in the great majority of cases in this country, the local banker has a very meager knowledge of investments. He may not be willing to admit that he does not know much about securities. Under such circumstances it may frequently very well be that the advice of a local banker will have as unfortunate an outcome as if a farmer had acted on his own initiative. But the banker is the proper one in the community to advise on investments. The incidents of the last two years have impressed on the banking community the necessity for a wider knowledge of securities, and moreover he, above anybody else, is in a better position to post himself on available investments for his clients. It is his business to know.

### Getting Posted

I repeat that a farmer should not rely upon his own knowledge or upon the word of anybody that he does not know, and has not known for a long time, when he is making an investment, and I repeat that he should consult his local banker. This does not mean that he should take his advice, but the banker can more quickly get qualified advice than the farmer himself can. He refers such inquiries to the bank in one of the larger cities which carries his accounts. Usually they are not any too well posted on security investments, and when they are wise they confer with bond houses which have built up a reputation as qualified judges of securities. The banks should be able to judge between these houses, and the farmer may in time. Some farmers and others draw wills without consulting lawyers, and often make a better job of it, so far as carrying out intent goes, than the lawyers. An increasing number of us cure ourselves of ills without doctors and medicines. On the whole, however, both the lawyer and physician should be consulted, and have their spheres of usefulness.

### Where the Bond House Comes In

Therefore, the local banker is not to be overlooked in deciding upon an investment in securities, and plenty of time should be taken in considering such an investment. The farmer should get his bank to send to him circulars of bonds recommended by the principal bond-issue houses in Chicago and in New York, go over the offerings on his own account, and then consult again with the officers of his local bank. He can be free to do this, whether he has bought stock in the bank or not. He should not buy stock unless it gives him an adequate income on the investment, because bank stocks are, as a rule, established on a market basis which represents, as in the case of United States government bonds, other than investment considerations. That is, control of the bank gives the use of other people's money, just as ownership of United States bonds enables national banks to issue circulation and secure deposits on the government money.

I bring up first this question of the

local bank because the private investor must have the advice of some one disinterested in any particular security when considering an investment. And I speak at such length because it is not done as customarily as it should be. I believe that I can give no better advice than that the local banker should be the trusted adviser of the community in the investment of its savings, as the lawyer, the preacher and the physician are, or should be, in their several spheres. That the banker has not generally so acted in the past is due to circumstances and part to his training in which knowledge of investments has not played always the important part demanded by present conditions. This is being changed, and in the meantime he can rely on the city banks, as they do in turn on the bond houses.

### Examine Securities as Carefully as Land

I pass over the desirability of investing in real-estate mortgages on farms or on improved land in the market town, for in this matter the farmer is usually wise and well posted and his own best judge. I want him to make his investment in securities only after the same detailed examination he would insist upon in putting out money on a mortgage. And I follow the reference to the local bank, by considering the advisability of an investment in the properties which do the electric-light and gas and electric-railway business in the market town, if it is a substantial place, or in the nearest large city that he goes to once in a while. In this, however, he needs advice from those familiar with investments, and he wants to assure himself of the likelihood of the growth and continued prosperity of the city. There are other questions which he should concern himself with in relation to the company itself and the particular security in which he is proposing to invest.

### What to Beware Of

Perhaps it would be better to say what an investor should avoid than what he should assure himself of. He does not want to buy the securities of new companies, of enterprises to be started or only being completed. More broadly stated, he should not advance his money to enable other people to build an enterprise or to buy one. This he virtually does in investing in many classes of securities. Let him then examine the purposes for which the bonds offered him for investment are issued. Emerson advises the reading of an old book when the reading of a new one is proposed. I should advise investment in an old security when you are asked to buy a newly created one. In other words, utterly disregard any talk of future profit and look for security in the records of what has been already accomplished. You can most surely get this in a security whose market quotations can be examined for a number of years and which is the issue of a company whose earnings, available for the bonds, may be ascertained for a more or less extensive period. I shall not, at this time, go into the question of franchises, rates, validity of the bonds, margin of earnings for interest, value of property covered, other outstanding securities ahead of the one offered you, or representing the equity in the property over and above that represented by your bonds.

### Standard Listed Issues

These several classes of investments should be subsidiary to the class of investments in which I consider the bulk of the earnings of the investor, whether private individual or an institution, should be placed. Undoubtedly standard listed railroad-mortgage bonds recommended by an investment-bond house should attract the most of a man's savings. An investor in such a bond gets regularly more information about his security and the issuing company than he can certainly rely on in any other class of security. Occasionally, in the promotion of a special issue, a wealth of statistical details is furnished for the edification of a possible investor. A year later it may not be possible to secure the slightest shred of information. Unfortunately this is true of very substantial companies, whose securities have a good standing in the market, through their introduction by a reliable firm of brokers or the record made by the company over a series of years.

Full information on all stock-exchange securities is required by the exchange authorities before they are entitled to be quoted on the exchanges, and is obtain-

able, in one form or another, regularly thereafter. The assurance that information is always available about the business of a company issuing securities, its earnings, its finances and the general trend of its business operations, is one of the important things to be carefully thought about before venturing one's money in a security.

### Where Information is Published

A great many false notions are prevalent about the New York Stock Exchange. I am a critic of it in some respects myself, but it serves an immensely valuable purpose in safeguarding the investor in securities. That it does not fulfill its whole possibilities in this direction is no basis for wholesale condemnation. There is no other single force doing so much for the legitimate investor as the New York Stock Exchange, and with reforms now under way it will do still more in the future.

### An Open and Free Market

But safeguarding the interests of the investor is not the primary function of the stock exchange. Its great usefulness and purpose is in providing a market for the sale and purchase of securities. I put sale first because this is a point about investment in securities which is seldom emphasized. A farmer's investments in securities should be in securities which he can sell at need at a price which he can be assured represents the general demand and supply of a free market. Unexpected demands for the use of one's saved-up resources arise, and he should not have these tied up in unsalable securities, even if they are good securities so far as income and safety of ultimate payment are concerned. This is one of the serious objections against investing in the so-called public-utility corporations, unless it be in those operating in the largest cities. Recent events have once again demonstrated how unstable the financial conditions of even those companies may become.

Now, you may say that I have not given any specific advice as to what securities a farmer should put his money in. That is not my commission, and what I would advise at any special time would not be what might be the wisest choice at any other time or under changed conditions or if the individual needs of the investor were known.

### Classes of Bonds

I have not even taken up the different classes of bonds. I have said nothing about first and second mortgages, collateral trust and debenture issues, refunding bonds, and so on through the whole list of technical phrases. There is too much buying of securities on the name. Appreciating this, creators of dubious securities use all their arts in thinking up names which sound impressive. A fifth mortgage may be better than some other first mortgages. A refunding or general mortgage may be better than a bond which has a prior mortgage on some portion of the property under the general mortgage. Some of the very best securities that can be bought are debenture bonds without any mortgage lien; or collateral bonds, secured by pledge of stock of other railroads, even though the laws of the state of New York, regulating the investments of funds by life-insurance companies (which laws were framed by people with very little knowledge of investments) excluded collateral bonds from the list of securities which may be held by such companies.

I think that the general principles I have outlined, if followed, will be more useful to the average investor than any amount of specific direction I could give as to this or that security, or even vague recommendation of the merits of a first mortgage over some other kind of security. We see much of that kind of advice, and most of it is false or foolish.

Recapitulating, I should say, seek first of all advice from some one as near your own locality as may be, in whose disinterestedness and character you can trust, and who, like your local banker, is in a better position than you to draw in expert advice from the great investment centers. Then I say, look around about you for prosperous corporations owning properties whose development you can keep in fairly constant touch with, and see what investments can be made in them.

But the bulk of your investments should go into bonds of the great railroads of the country, whose business is independent of the fluctuations of industry in any one locality.



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# Around the Farm

Items of Interest to the Progressive Farmer

## Agricultural Problems for Rural Schools

THERE is a general demand that the elements of agriculture be taught in the public schools. There seems to be several difficulties to be overcome before much can be done. The schools are taught in the rural districts at a season that is most unfavorable for practical experimenting, so far as crop growing is concerned, and so agriculture in the school is necessarily confined to theory. Of course, some experimenting in stock feeding could be conducted under the direction of the teacher at any season that the school is in session, and the pupils could be taught the principles that underlie successful agriculture, leaving the demonstrations of the principles for a more convenient season.

Many problems could be worked out at school that would prove both interesting and instructive to the pupil. Problems in arithmetic which deal especially with farm questions could be proposed for solution by the teacher, such as the following:

I cultivated a field of corn last summer forty rods long and thirty-six rods wide. How many acres in the field?

On one half of the field I applied two hundred pounds of fertilizer to the acre and on the other half no fertilizer was applied. How much fertilizer was used? The fertilizer cost twenty dollars a ton. What was the cost of the fertilizer used on the corn?

The yield on both the fertilized and the unfertilized parts of the field was very uniform, and I husked the corn which grew on a plot of unfertilized corn four rods square, and found that it yielded five bushels of corn, and I also husked a similar plot of the fertilized corn, and found that it yielded six bushels. Using the plots husked as a basis, calculate how much corn grew on the unfertilized part of the field. Calculate how much grew on the fertilized part. If the corn was worth fifty cents a bushel, what was the profit over the cost of the fertilizer an acre from its use? What was the value of the corn which grew on the entire field at fifty cents a bushel?

I desired to sow the field in wheat, and would use five pecks of seed and

lems in the text books are so abstract that they do not appeal to the student, and the only interest which they arouse is how to get the answer with the least work and thought.

A. J. LEGG.

## Starting Seed Potatoes Early

THE illustration shows a plan which I have found of practical advantage for starting seed potatoes under shelter. Take a thin board and drive sixpenny nails through it at a distance apart to give plenty of room for potatoes, then turn the board over (nail points up), and take the potatoes (stem end down), and force them down on the nails. Then place the "seed-potato" patch" in a warm, light room, and thrifty sprouts will grow.

When the season and ground are suitable out of doors, cut the potatoes, leaving a goodly piece of the tuber with each sprout, and carefully transplant them into the soil. You can start your potatoes on this plan eight to ten weeks before the season is fit for out-of-door planting, and grow sprout plants that will grow rapidly after transplanting into your field or garden.

F. V. BRAYMER.

## Complete Fertilizers

THE term "complete fertilizer" is often misunderstood. Farmers who have not made it a point to post themselves on the subject are apt to understand the term to mean that the fertilizer is so compounded as to furnish plant food for the growing crop in the most economical ratio in which the plant can use it. They naturally conclude that if a complete fertilizer is used the crop can be grown without exhausting the soil.

The facts are that the term "complete fertilizer" as commonly used simply means that the fertilizer contains some phosphoric acid, some potash and some nitrogen. A fertilizer may be very rich in phosphoric acid and not contain as much as one per cent of potash and nitrogen, and yet it is classed as a complete fertilizer because it contains some nitrogen and potash. It may be very rich in potash and very low in the other two elements, still it is a complete fertilizer because it contains some of the other two elements. Thus we see that a complete fertilizer is not necessarily an economical fertilizer to buy. It is usually economical to buy a fertilizer which is rich in phosphoric acid, since this element has a tendency to accumulate in the seed and grain which is often sold off the farm, while potash is found in largest quantities in the straw.

Complete fertilizers may be most economical to use, but the purchaser should be sure that there is enough of each of the three ingredients in a complete fertilizer to justify the name. I have used complete fertilizers from time to time and I have also used superphosphate alone. I find that usually I get better results from the superphosphate alone and at a very much less cost. There is a complete fertilizer used to some extent in this locality which shows an analysis of ten per cent phosphoric acid, two per cent potash and .42 per cent nitrogen. If two hundred pounds of this fertilizer is applied to the acre, one acre receives twenty pounds of phosphoric acid, four pounds of potash and less than one pound of nitrogen. If the land needs potash and nitrogen at all it needs more than four pounds of potash and one pound of nitrogen to the acre. There would not be enough nitrogen applied to increase the yield of corn or other cereals one bushel an acre, provided all of the nitrogen was used by the growing crop.

A. J. L.



Sprouting Seed Potatoes

two hundred pounds of fertilizer to the acre. The work necessary to put in the wheat was worth one dollar an acre. The seed wheat was worth one dollar a bushel and the fertilizer used for the wheat was worth eighteen dollars a ton. What would it cost to sow the field in wheat?

The field is valued at fifty dollars an acre, and I calculate six per cent of the value for rental. If it costs two dollars and fifty cents an acre to harvest and thrash the wheat crop, and the yield is twenty bushels to the acre, worth ninety cents a bushel, will I gain or lose on the wheat crop? How much?

Other crops or any transactions with which the farmer comes in contact could be taken up in the school, and a number of problems suggested which would not only create an interest in farming as a business, but would also present the subject of arithmetic in a way that would appeal to the pupil. Many of the prob-

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## Gardening

By T. Greiner

### Asparagus

A Maryland lady reader asks how many asparagus plants it will take to plant one hundred and fifty square feet of land, and what slope and location are best; also where reliable information and plants may be obtained.

As we, for home garden purposes, make our asparagus rows about four to five feet apart, we would want from thirty to forty-five plants to plant one hundred and fifty square feet, setting them one foot apart in the row or rows. My old friend Dr. F. M. Hexamer, whose little book on asparagus gives the latest and thoroughly reliable information on that subject, says about planting: "For the home garden there is no better plan than to plant but a single row, with the plants two or three feet apart, along the edge or border of the ground, but not nearer than four or five feet to other plants, and in case of grape vines even more room should be given. Here they require but little care, and the plants have a space which is unlimited for the extension of their roots in search of moisture and food."

A warm, very fertile sandy loam is probably best for growing asparagus, and if it is on a slight slope toward the south or east, all the better. But asparagus is so good, and so desirable for the family garden, that we plant it anyway, no matter what the character of the soil in our garden. We simply must have it.

### About Coal Ashes

Mrs. C. N. G., of Battle Creek, Michigan, writes: "Two years ago I buried my hard-coal ashes in my back yard so I would save the expense of having them taken away. It was a wonder to see things that grew on that spot—pie plant and strawberries. I wish you could have seen them."

Yes, I have often seen such results from coal ashes. Tomato plants especially grow wonderfully large and thrifty and yield heavy crops when planted on soil containing much coal ashes. Yet theoretically these ashes contain only traces of the essential mineral plant foods, and no nitrogen, and have no commercial value for plant-feeding purposes. Frequently, however, such ashes also contain wood ashes from kindlings, etc., and these additions may in a measure account for the thrifty plant growth.

Coal ashes often are used for filling in low spots, or for making walks and roads from the house to the barn or other outbuildings. But I prefer to use them in the garden as a mulch around currant and gooseberry bushes, etc. The results usually are satisfactory.

### Commercial Fertilizers for Celery

A New Jersey reader wants me to tell him what commercial fertilizers I consider the best for celery. He says: "I have good stable manure, and always spread this broadcast before I plant an early crop, usually potatoes or onions, then apply a second coat when I get ready to plow for the celery, and also mix ashes in the row, but the coming season I thought of using fertilizer in place of the ashes."

With a full supply of good stable manure I hardly ever worry much about fertilizers for any crop. The fact is that we can raise good crops of celery on suitable soil by the help of the free use of stable manure alone. The method of application is excellent—a coat of manure plowed under for the early crop (whatever that may be) and a second coat plowed under after that crop is harvested. Yet in most cases we can make the stable manure more effective by using with it, both in its making and its composting, a moderate quantity of plain superphosphate (dissolved phosphate rock, or so-called acid phosphate). This if used in the stables will arrest the volatile ammonia, thus not only freeing the stables from the penetrating acid ammonia smell, but also holding this powerful plant food in the manure, and saving it for the use of the plants. And wherever manure is piled up for composting, and is liable to heat and throw off ammonia, a quantity of this superphosphate may be added with benefit, say twenty-five pounds to each ton of manure. More of it will do no harm. Grain crops will be especially benefited by such additions to the manure applied to them.

A little potash, either as kainite or

muriate, might also be added to the manure with advantage; but when you have wood ashes which you can apply in or along the celery rows, what better fertilizer could any one wish as an alternation with good stable manure treated with superphosphate?

Plain superphosphate is about the cheapest of concentrated fertilizers, as it can usually be had for fourteen or fifteen dollars a ton. It contains about thirteen to fifteen per cent of phosphoric acid in its most soluble state. Lands long cropped with grains, including corn, are often quite scantily supplied with phosphoric acid, and its free use is then especially advisable.

### Garden Rue

A Pennsylvania lady comes to the defense of garden rue, as follows: "I consider rue a very valuable herb, and can hardly raise enough of it to supply my wants. It has helped me many a time in past years in stomach troubles, just eating it raw. For winter use we put it in whisky. It is good for colic in grown people, and even for crying babies it acts like a charm."

This shows that garden rue, which with all its acidity and disagreeable odor has some medicinal properties, is still used in many families as a home remedy for various troubles. Undoubtedly, however, the medical profession must have good reasons to abandon its use as a medicine, and it is likely that we have better remedies at our command at the present time than the old garden rue. Home remedies have their uses, however. We always keep various drugs and remedies on hand for emergencies, but personally I do not believe in being forever doping either myself or the children, especially without the advice or sanction of the family physician.

### How Many Acres of Onions?

The onion and its culture has been given much attention in these columns—more, in fact, than any other vegetable. The frequent inquiries received have shown it to be of particular interest to many, and perhaps deservedly so. Somebody now wants to know "all about onion culture," and especially how many acres one man can tend. That's a rather pointed question. I will say, however, that I would not engage to raise even one acre of onions alone, whether they are to be raised on the old plan, by sowing seed directly in open ground, or on the newer one of raising seedlings under glass and transplanting them to the open. One man can prepare the ground all right, can sow the seed with the garden drill and cultivate the patch with the hand wheel hoe. In fact, he might be able to tend a number of acres up to that time, but if the land is at all weedy he would soon see the necessity of turning in a number of "hands" (which might be boys twelve to fifteen years of age) to do the weeding.

I could easily harvest the crop grown on one acre, but in topping and otherwise getting them ready for market I would want some help. I could easily raise the plants required for one acre of Prizetaker or Gibraltar onions, and prepare the land for setting the plants, but I would not care to do all the plant setting myself, although any active person used to the work might, at the cost of a good deal of backache, do it in about three weeks' time. I prefer to let boys do this job, helping along as much as other business will allow.

In a general way I would not advise any one who knows little about this business to plant an acre of onions. He might risk a quarter acre, following the instructions as laid down in our modern books on onion growing, and thus, by study and experience combined, learn "all about it."



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# Fruit Growing

By Samuel B. Green

## Peach Tree Helped by Pruning and Painting

J. M., Lawrence, Massachusetts—You state that in a group of three peach trees all bloomed and set fruit two years, but the fruit withered and dropped; that last fall one of them was severely pruned and painted with lead and oil, and that in 1908 this tree bore a bushel of first-class peaches and that the other two trees died. The painting was done for the purpose of destroying the San Jose scale. It is possible that the fruit that withered and dropped had been injured by frost.

I am inclined to think that the trees that died did so as a result of injury from the San Jose scale. The tree that bore the peaches was probably helped both by the pruning and the painting. By pruning off a large portion of the tree a great deal of the San Jose scale was removed, and it is possible that painting destroyed a large part that was left. I do not know of any experiments that have been made in the painting of peach trees for the killing of the scale, and I should be afraid to recommend such treatment. I am inclined to think, however, that it is quite likely that it will prove to be something of a remedy for this pest.

## Trees Gnawed by Calf

M., Cuyahoga Falls, Ohio—Where the bark is gnawed off of apple or other trees, and the damage is near the surface of the ground, then the best way of protecting it is to paint the wound with grafting wax or white lead and oil, and cover with a mound of earth. Where the damage is above the ground, it is a good plan to paint it in the same way, and then cover with paper or burlap, so as to protect it from drying out until the bark has had a chance to heal over entirely.

If only the outside bark is gnawed off, the circulation of sap will not be interfered with. If a portion of the bark is left, even if only a strip one fourth of an inch wide, the flow of sap will not be seriously interfered with, but the tree is liable to dry out unless all the injured parts are thoroughly protected from the weather. Where the girdling is complete, little, if anything, can be done that will prove satisfactory, except in the cases of large trees that are girdled near the surface of the ground, when it is sometimes worth while to insert scions that will bridge over the injury.

## Care of Cedar and Thorn-Apple Trees

M. A. B., University, North Dakota—In regard to removing the pulp from the seed of silver cedar, I have not experimented with acids for this purpose, but have found it quite satisfactory to remove the pulp by soaking the berries in potash or soda lye for perhaps five or six hours, and then rubbing them against a fine sieve. Treated in this way, the pulp is easily separated from the seed and the latter is not injured. This seed has such a tough, resistant cover that I doubt if immersion in quite strong acids for a considerable period would do it any harm.

In regard to removing the fleshy part of thorn-apple and similar fleshy seeds preparatory to planting, I find the best way to remove these non-resinous pulps is to mix the seed with sand soon after it is gathered, and bury where it will be kept moist. Treated in this way, the pulp soon rots, and merely rubbing the sand and pulp together through the hands or against a screen with a rubber pad will remove all the pulp very easily, and in our practise we do not even take the pains to do this after the pulp on this class of seeds has been thoroughly rotted.

The seeds of thorn-apples and red cedar generally lie over in the ground for one season before starting, and it is my practise to stratify the seed in autumn and sow along in late spring or early summer, covering with about three inches of hay. This keeps the seeds somewhat moist throughout the growing season.

## Caterpillars on Catalpa

H. B. S., Long Branch, New Jersey—I think you will find a satisfactory remedy for the caterpillars that injure your catalpa trees in arsenate of lead, which is especially desirable for this purpose.

## Insects on Grapes

B. F. B., Chillicothe, Ohio—I am afraid you did not look very closely at the insect that destroyed the flowers on your grapes, or you would not think it the same as that which caused the under side of the leaves to turn brown. I think the insect that ate the flowers was the common rose bug. This is a very troublesome insect and difficult to eradicate. I think the best treatment, where one has only a few vines, is to bag the clusters of grapes about the time the flowers open. This, together with the hand picking of the grapes, is generally satisfactory. We also find that spraying the flowers with Bordeaux mixture, made after the usual formula, as frequently recommended in these columns, will prevent to a great extent the workings of these insects.

The insect that caused the foliage of your grapes to turn brown and to fall before it was time for them to ripen was probably the grape-vine leaf hopper; but if this was present you must have noticed it, as you stirred the leaves of the vines, for in that case there would be a cloud of little whitish insects that would fly into the air for a second and then alight again. This is known as the grape-vine leaf hopper and sucks the juices of the foliage. It is seldom very troublesome in your section.

A similar effect might have been produced, however, by mildew of the grape, which would also cause the foliage to dry up and drop off and leave the fruit unripened on the vines. If this trouble occurs next season, I wish you would send me some samples of the diseased foliage soon after it is affected. If you will let me know if the leaf hoppers were present, which you may know by my description, I will then give you a remedy for them in these columns, and if this insect has not been present, the chances are that the foliage was destroyed by disease, and then you will find it necessary to begin systematic spraying with Bordeaux mixture in order to protect from it.

## Insects on Boston Fern and Rubber Plants

C. A. K., Brooklyn, New York—The soft white insect to which you refer as being found on your fern is probably the common mealy bug. The best treatment for it is to lay the fronds carefully in the palm of the hand, and then with a soft tooth brush and plenty of strong soapsuds wash the leaves and remove all the bugs and scales. If any of the fronds are hopelessly infested, then cut them out entirely.

It will require the most careful work to get rid of them entirely with one treatment, and it is practically out of the question. On this account I think you will find it best to repeat this treatment several times at intervals of perhaps two or three weeks; but if you follow this plan persistently you will succeed in finally getting ahead of them.

The flat, hard scale on the under side of the leaves of your rubber plants can be removed in the same way, and it is quite an easy matter in this plant, for the leaves are large, smooth and stiff.

## Planting White Pine in Southern Minnesota

W. E. F., Mantorville, Minnesota—I am glad to know that you are to take up the matter of planting white pine. I am inclined to think that, taking everything into consideration, it will not be necessary for you to plant nearer than six by six feet, but planted at this distance the trees will have a number of low branches which must be removed later. If they were planted four by four feet they would soon shade one another, and as a result the lower branches would be killed off quicker than if further apart. There is considerable difference in the number of trees to the acre at these distances, and it seems to me that six feet is about the right distance apart.

I know that pine grows to some extent in your section, and recall very well some nice pines that I once saw along the banks of the Zumbrota River. If you could plan to get seedlings of these, you would have one of the hardiest forms of the white pine. This is one of the furthest points south that this tree reaches in Minnesota.

Don't miss our great flower offers on page 4. It will pay you to take advantage of them.



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# Review of the Farm Press

## What Others Are Saying About Important Farm Matters

### Systematic Road Dragging

WHEN D. Ward King made a tour of Iowa telling of his road drag and the results of its use, it became apparent to me that it was a fine thing, and I decided to give it a trial. Believing thoroughness to be the only correct system in any kind of business, I decided to apply it to road dragging. I started on a campaign among the farmers, calling their attention to the great amount of good that could be done with the road drag, explaining to each one that I wanted to employ men who would drag roads whenever I called on them, and that I would employ only those who would agree to that. I kept up the campaign until enough were contracted with to drag the roads of the township. Then I divided the roads of the township into stations, giving each of them one. When the roads are in a condition to need dragging I call them up by phone and start them all at about the same time, and in about three hours the roads of the township are dragged complete. Each one drags the station, which increases the interest. The township pays fifty cents a mile for dragging.

We have carried out this system about three years, the results being that our roads are free from ruts and mud holes, with a nice smooth line up and well crowned. The people in this township are very enthusiastic about road dragging and the general opinion seems to be that we can have good roads more days in the week, more weeks in the month, more months in the year, at less cost, than by any other method ever discovered. While the cost of dragging goes steadily on, the cost of the big grader grows steadily less.

I would suggest to road superintendents to never get discouraged because it storms after you have your roads dragged. Call up your men and have them drag the roads again. If it storms again, drag them again and again, and again. The road funds cannot be expended to better advantage.—P. Ransom in Wallaces' Farmer.

### Value of Manure

WHEN the city man goes upon a farm he believes that he should be able to learn from the scientists exactly what he can afford to pay for manure. He doesn't realize how variable it is in composition and he doesn't know that he might not get one dollar a ton in value from it, while the competent truck grower or farmer might get a return of three dollars a ton. Averages are not very safe guides, but assuming that we are dealing with manure of average composition, a ton from sheep sheds or swine pens is worth about fifty per cent more than that from horse stables or cow stables. The manure from poultry houses is worth more than twice that from sheep pens. These relative values are fairly safe guides if there has been no leaching. Any manure has its agricultural value greatly increased by the addition of acid phosphate or steamed bone, as farm manures are very low in phosphoric acid and soils usually are deficient in this element.—Alva Agee in National Stockman and Farmer.

### Corn for the Silo

IF NINE years' experience with corn and silos is of any value, I shall be pleased to give it. During this time I have fed from ten to fifty head on silage, alfalfa and other hay, and various grain feeds. I have weighed each cow's milk every milking and kept a close record of weights of grain and hay fed daily. I have raised Eureka corn, likewise Cuban Giant, Pride of the North, Huron Dent, Mortgage Lifter, Evergreen, Country Gentleman and several varieties of flint. I have finally adopted the Leaming as giving in this locality the largest combined yield of mature stalks and ears. It averages thirteen feet and has yielded as high as twenty tons of green fodder an acre. I would hardly be willing to take the trouble to harvest and cut into the silo any field of immature corn—that is, corn on which the ears had just begun to form. I want the kernels glazed. Many feeders say the grain passes the animal undigested; however, it seems to make animals fat and sleek, even though some of it does show in the droppings. I once filled a silo, beginning with immature corn fifteen feet, mature corn heavily eared five feet, mature sweet corn, ears all removed, five feet. I weighed each cow's milk daily and grain and hay ration was closely estimated.

Result: On mature sweet corn with grain and alfalfa, fair yield; on mature flint corn well eared, grain and alfalfa, gain of two to three pounds of milk for cow; immature corn, no ears, grain and alfalfa, loss of five to six pounds of milk per cow. Moreover, when feeding silage from immature corn, the cow's health seems less vigorous, hair becomes rough and appetite more freaky. The smell of the silage is less sweet and wholesome, and although I never had a sample analyzed, the evident content of acid is much larger.

Rather than silage immature corn I would stock it and feed it as dry curd fodder. If I want corn to grind I raise flint corn, break off the best ears and put stalks and nubbins in the silo with the Leaming.—J. R. Benton in Rural New-Yorker.

### Renting on Shares

EACH lease of a farm on shares is probably different in some particular from any other ever drawn. The main point of such a lease is that the owner furnishes the farm and the tenant his labor. The rest of the provisions are a matter of agreement, depending on very many things, principally, however, on the value, location and fertility of the farm on the one hand and the possession or non-possession of stock and farm utensils by the tenant. The experience, ability and reputation of the tenant also have considerable to do with the matter.

In most leases the tenant probably furnishes the tools and horses. The rest of the farming implements are furnished by the owner if he has them. If neither has them, the lease sometimes provides that they shall be bought on joint account and divided at the end of the term. The same is true with reference to stock. If the owner furnishes wagons, tools, machines, etc., our opinion is that in the majority of cases the repairs on these are paid for out of the proceeds of the farm. The insurance is usually paid by the owner. Highway taxes are generally worked out by the tenant (this may be changed where road taxes are under the money system). The other taxes are sometimes divided, the tenant, for example, paying the school tax and the owner paying the other taxes.

The whole matter is one of agreement, the same as the amount of rent which a tenant would pay for a farm. We have drawn leases where the owner furnished nothing but the land and pays the insurance on the buildings. In that case the tenant furnishes tools, machinery, stock, seed, pays all the taxes and returns to the owner one half of the net sale of property. Then, of course, the tenant hires his help, and the half proceeds of the farm are in lieu of a money rent. Where the owner of the farm has any oversight of it, and assumes any authority as to the kind of crops and gives his advice, it is more of a working partnership, and he then furnishes more than otherwise, but in return he receives a larger proportion of the produce.—Stedman and Stedman in The Country Gentleman.

### Long-Term Experiments

I HAVE heard hundreds of men say that something was true or was not true in farm practice, and offer as evidence the result of a single test. I have settled many a matter for myself in the same way. In some instances a single test is sufficient, but in more instances it may be worth very little. This is particularly true of everything concerning the soil. This fact is made clear by study of the results obtained in the two oldest soil-fertility series of experiments in this country—the ones at the Pennsylvania and Ohio experiment stations. Conclusions from the results of the first few years would have been very misleading. This situation may be discouraging to farmers, but we must accept it. What we want are facts, in order that the most possible net profit can be had from the land. We should know that we cannot determine in one year what kinds and amounts of fertilizers will be right for our own land for future years. The problem is not that easy. We can drop all attempts to find out, and we can rail at science for being so slow, but that only limits future income. The right way exists, and it is worth while to keep working toward it. In the meantime some truths of pretty general application are being made known, and we can farm better than was possible when less was known.—Alva Agee in National Stockman and Farmer.

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## Misleading the Farmers

**M**R. WHITNEY of the Soils Bureau at Washington has put forth the doctrine that our soils contain, by natural endowment, all of the nitrogen, phosphorus and potash they will ever need, and that it is all useless to attempt to renew these elements by outside supplies. Opposed to this rank heresy and unscientific assertion are the best soil experts of the United States, such as Dr. Cyril G. Hopkins of Illinois, and Professors Henry and Sandsten of Wisconsin. But more than that, the intelligence and experience and common sense of the farmers of the United States refuse assent to any such doctrine.

On this point Professor Sandsten says: "The more or less commonly held view that all soils contain sufficient phosphates for a practically indefinite period of cropping is entirely erroneous. The average content of phosphoric acid in the virgin soil surrounding fields that have been subjected to forty-five to fifty years of cropping is eighteen and one half per cent, while the average of the soils from these fields is twelve per cent, showing that over a third of the total phosphate has been removed in a single generation. Moreover, all these soils have become acid by this cropping—that is, the carbonates (lime) of the surface soil have been removed.

"While it is true that the remarkable development of dairying in Wisconsin has, to a great extent, prevented the tendency toward soil exhaustion, which had been begun by the grain raising of earlier days, and which has become so serious in other states in the East, it is true that there are large numbers of farms in Wisconsin which have been seriously reduced in fertility by a continuance of wrong methods in farming."

Professor Sandsten names Wisconsin, but his doctrine applies with equal force to all other states. The cow alone will not hold up the fertility of the farm. The land must be given outside supplies of nitrogen and phosphate.—Hoard's Dairyman.

## A Pea Crop as a Preparation for Alfalfa

**T**HE great drawback to spring seeding of alfalfa is that when the alfalfa comes on, the weeds keep it company, to the injury and often the destruction to the former. This is true to such an extent that some way is desired that will eliminate the weeds. August, or even earlier, is coming to be a popular time to sow alfalfa, because it can then be sown after some other crop has been harvested, and the season for the great bulk of weeds to grow is past.

There is probably no crop that can be grown that will leave the land in better condition mechanically and cleaner of weeds than peas. Nor is there a crop that will be off the land sooner and give a longer time to start the alfalfa. Canning factories are springing up all over the country and they locate in the best cropping sections. No doubt alfalfa can be made to grow wherever peas can be profitably grown and prove a valuable addition to the crops of the section. After the peas are harvested the land need not be plowed, but can be put in order with a disk or cutaway and other harrows in connection with drag and roller. The pea crop will give the farmer a rental for his land and be out of the way in plenty of time to fit the land for alfalfa seeding. If weather conditions are favorable, why not sow the alfalfa in July, and thus give it an extra month over the August time of sowing?

No doubt one reason August is recommended lies in the fact that sometimes July is a dry month, and August as well, but more rain is expected in September, and by sowing toward the middle of August it is expected to escape most of the dry, hot weather.

There is a factor in the preparation of the soil that has too little thought and consideration, and that is putting the land in condition to conserve moisture. After the peas are off, the land should have at least two workings in a wholesale way about a week or ten days apart before the alfalfa is sown. Each time the land should be most thoroughly worked with disk or cutaway harrows and roller, making a dust mulch on the surface. The last working should be with a light drag harrow. When the alfalfa is sown on land prepared in this way, and covered from an inch to an inch and a half deep, the chances favor success. Even this can be much improved by a top dressing of rotted manure. This pea crop also gives a splendid opportunity to manure the land before the peas are sown. After the peas have had their share the remainder is in the best possible shape for the young alfalfa roots to feed on, and certain they are to do it. After the alfalfa comes to cropping time it is hard to find the opportunity to dress with manure.—John M. Jamison in National Stockman and Farmer.



## PAINT TALKS No. 2—Paint on the Farm

When a city man or a suburbanite contemplates painting he generally thinks about it as a means of "slicking up"—making his property look as nice as his neighbor's. When a farmer or factory owner considers painting he thinks about it as "maintenance of my plant."

The farmer's buildings, his implements and his fences are his plant. The better their condition the more valuable the plant. The longer he can avoid replacing them the better business man he is.

Paint is the most important agency in keeping down the "maintenance" account. If pure white lead and pure linseed oil paint is used—and used just before it is absolutely needed—the money spent on it is not an expense but goes into investment, into improvement.

Read these paint talks—the one which preceded this and those which will follow. As a business man—as the owner of a plant which must be maintained—the farmer owes it to himself to avail himself of the pointers which these little lectures will contain.

Meantime send for our Painting Outfit and if you need paint immediately ask your dealer for white lead with the Dutch Boy Painter Trademark. It is the commonsense paint material for farmers who manage their farms on a business basis.

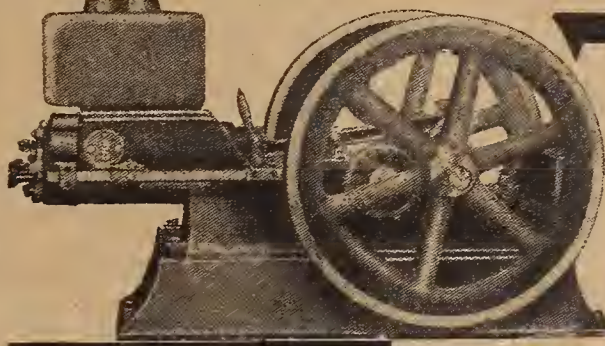
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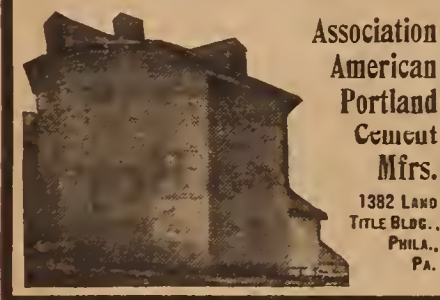
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## Live Stock and Dairy

### The Importance of the Sire

It is an old saying that the "bull is half the herd," and this principle applies to a great extent to the sire in all breeds of stock, whether horses, cattle, sheep or pigs, and to the influence of some individual sire most of the noted breeders of the past and the present can trace the excellence of their stock.

This does not mean altogether that the sire in question has been of great merit himself—in fact, it has been more often the contrary—but that by reason of good breeding he has had the power of imparting to his offspring something more than average merit. In many cases sires possessing this influence are shabby-looking animals in themselves, but on studying their pedigree it will generally be found that they have been bred, and in many instances inbred, from animals of good lines of blood and of superlative merit.

Sometimes, even in the case of Thoroughbred horses, some that have never themselves been able to win a race have become famous at the stud and been the sires of numerous winners. In the selection, therefore, of a sire for stud, herd or flock, as the case may be, there is a considerable amount of risk and of luck to be taken into account, whether that sire proves fortunate or otherwise.

### High-Priced Failures

In cattle breeding how often has a breeder given a very high figure for a bull that has taken high honors in the show yard, and almost perfect to look upon, with breeding all that could be desired, and yet mated, though he be, with good cows, prove a dismal failure as a sire? On the other hand, how many fortunes have been made by the use of animals of no great merit in themselves, and picked up by chance, as it were, but yet have proved themselves great sires in the truest sense of the word?

To go back to the beginning of Short-horn history, Hubback was bred by a bricklayer, and was picked up for a mere song, and proved himself to be a sire of such excellence that Thomas Bates considered Shorthorns to be without any real merit where his blood was wanting in their veins. Belvidere, again, was not a particularly meritorious animal, and yet was the sire of Duke of Northumberland, supposed to be the grandest Short-horn bull ever bred or seen, and also of the dam Duchess 34th, Mr. Bates' best cow. Buckingham, too, was another instance of a rather shabby-looking animal bred from noted parents, but proving a great sire. Frederick, once given for the use of the tenants on the estate, and bought back at forty dollars, was the making of the noted Townley herd—champion of England, also. The greatest sire Mr. Cruickshank ever owned or bred was not a show animal by any means, and on that account was once near being disposed of.

In Shires, again, what a great influence Lincolnshire Lad 2d had on the breed, and his blood runs in the veins of a large proportion of the winning Shires of to-day, and yet he himself had little to recommend him but his breeding!

### Picked Up for an Old Song

In sheep, also, the writer has known from his own experience of rams of good breeding picked up in a sheep fair for ten or fifteen dollars making a success of a man's flock, and being the sires and progenitors of more prize winners than any that had cost ten times as much, but there was, of course, the best of blood concentrated in them. The records of every famous stud, herd or flock are to a great extent the histories of some famous sires that have been used in them.

In choosing a sire, therefore, success does not lie in mere force of money enabling the purchase of some great show animal. Such a one, when obtained, costly though he be, and faultless in appearance, is just as likely as not to prove a dismal failure at the stud.

On what lines, then, are we to proceed in the selection of a sire? In purchasing an untried animal one must trust to fortune to a certain extent, for without seeing an animal's progeny it is impossible to feel satisfied as to what his stock may be; but in selecting a bull, for example, it is surely best to obtain one from a herd of outstanding merit and one bred from good parents on both sides and of good lineage.

By the term "herd" is meant a herd in the best sense of the word, and that is where the cattle are of the fixed type, possessing the same characteristics throughout, and bred for generations

from the same lines of blood, not a collection of animals of different types and pedigrees picked up at sales all over the country. In purchasing an animal out of a herd of this type one cannot go very far wrong, and should he be not up to show-yard style himself, he will be much more likely to be the sire of winners than a chance-bred one, although the latter may be far better to look upon.

Once a good sire has been obtained, he should be, and generally is, retained as long as possible, and his influence will then penetrate throughout the whole stock; but when the time comes that he can be used no longer, then the difficulty often arises how to obtain one good enough to fill his place and where to go to find him. If it is decided to go outside the herd for one, then considerable risk is run, and the greatest care should be taken and best judgment used, or the type which it has been the breeder's aim in life to attain may be upset, and the subsequent breeding become a very uncertain quantity.

### Selection a Natural Instinct

Some breeders seem to possess a natural instinct in selecting good sires without ever giving any extravagant prices for them, but that gift is not possessed by all. However, no one who has any regard for his herd will ever dream of buying a bad bull, but some occasionally buy a good one bred from bad parents, which often proves as disastrous in its results as buying a thoroughly bad animal to begin with.

A breeder with a herd of fixed type does not often try an outcross. When he does, he endeavors to find a sire possessing as nearly as possible the characteristics of his own herd. Violent outcrosses from time to time unsettle the type, which is often most difficult to regain. Any one who is fortunate enough to own a sire whose progeny all possess more or less the same type, and characteristics, coupled with good make and shape, is indeed a lucky man, and his position as a breeder soon becomes an enviable one, very different to one who, striving after show-yard renown, has been purchasing prize winners of various types and indiscriminate breeding at long prices, with no satisfactory results whatever.

Nothing is of greater importance to a breeder than the fortunate selection of a good sire. Many at the start, through lack of capital, have to put up with the best they can get at a price befitting the length of their pocket, but sometimes such a one, bought with care and good judgment, and after a careful survey of the herd selected from, proves a fortune. At any rate, no breeder should ever begrudge the most he can afford for the services of a good sire, of whatever breed of stock it may be. He must use his best judgment and aim at good blood and good breeding, and get as much individual merit as he can for his money, and then he will not go far wrong.

W. R. GILBERT.

### The Spread of Contagious Diseases

There is at all times danger of the spread of contagious diseases through many channels. Contagious diseases are due to their respective germs, some of which are more virulent than others.

Rabies is a contagious disease, but is seldom, if ever, transmitted, except through a bite from a rabid animal. Tuberculosis is another contagious disease, and is usually spread from cows to calves and pigs through the milk, or by healthy animals coming into contact with diseased ones, or, in case of hogs, where they are following cattle in the feed lot and the cattle have tubercular ulcers in the bowels. Glanders is transmitted by coming in contact with the discharge from the nostrils, or from ulcers on the legs or body, or through drinking fountains. There are other diseases of horses, cattle and hogs that are more virulent and more acute in their attack and more easily distributed. Hog-cholera germs are easily carried by the feet of coyotes, dogs, men and other animals, and distributed from one farm to another.

A recent outbreak of a contagious disease among horses was noted in which the germs of the malady were apparently carried to an adjoining farm either by dogs or on the shoes of individuals.

In these cases all dead carcasses should be buried in lime, or burned, preferably the latter, and all premises thoroughly disinfected, all stray dogs disposed of, and general quarantine rules observed. —B. F. Kaupp in Colorado Agricultural College News Notes.

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# Live Stock and Dairy

## Making Butter on the Farm

IN ORDER to produce a good quality of butter two very essential things are good care and good food for the cows. The cows must be provided with clean bedding and the stables need to be kept clean, well lighted and ventilated.

Before the milking begins on my place the sides and udders of the cows are carefully brushed, thus preventing dirt and dust from falling into the milk. The milking is done with clean, dry hands; to milk with wet fingers would be an extremely filthy habit. Just as soon as the milk is drawn from the cow it is strained through a wire gauze and three thicknesses of cheese cloth. All the milk utensils are thoroughly cleaned after being used, by first washing them in lukewarm water, next in hot water, and then they are scalded in boiling water. Every dish or cloth that is used in connection with the milk is put in a clean place, where there is a circulation of pure air, after being washed.

The cream is separated from the milk with a hand separator and held until there is a sufficient quantity to churn. The churning is done three times each week with a barrel churn. In preparing the churn and butter worker for use, they are thoroughly scalded with boiling water and then rinsed with cold water before the cream is put into the churn or the butter on the butter worker. A thorough scalding and cooling of the butter worker prevent the butter from sticking to it.

The cream is strained into the churn through a hair sieve and the churn is never filled more than half full of cream. The churn is not turned very rapidly, and is stopped several times at the beginning, to remove the cork, so as to allow the escape of gases. When the cream begins to break, care is exercised not to gather the butter granules into one large lump. The churning ceases when the butter particles are about the size of wheat kernels. Then the churn is fastened and the buttermilk drawn off.

When the butter is well drained from the buttermilk, it is rinsed with a little water, and after this has drained away the cork is put in the churn and cold water added. The cover is then put on the churn and the churn revolved slowly six or eight times; the water is now drawn off and the butter left to drain for about fifteen minutes.

When the butter is well drained it is ready to salt, and this is done in the churn, when the butter is in granular form.

About one and one half ounces of salt

## Value of the Pure-Bred Herd

THE true worth to a community of the pure-bred herd of stock we fear is greatly underestimated, but we are glad to note the fact that the growing interest among the farming and stock-raising class is taking rapid strides in the manner of stock improvement.

In visiting communities where stock farming is made a real issue along with other crops, we no more see the cross-bred, rough-haired and raw-boned type of animal that was so evident a few years ago, but instead we find well-bred, fine-boned, smooth, well-built animals closely adhering to some certain type of breeding.

When we go into a community and drive along the public highway and view the animals of the farm as they graze upon the pastures in the fields, or stand contentedly corralled within the farmer's feed lot, we can quickly tell whether there is within the radius of that community somewhere a pure-bred herd of stock.

In one community we find a predominance of Poland, Chester or Duroc hogs, or perchance some other popular strain, while we note the same in Shorthorn, Jersey or Polled breeds in cattle, and so it is among the horse, sheep and all classes of farm animals.

When our butchers desire good stock to use upon the block to supply their custom they drive out into the country seeking the best-built animals for their use, and they soon learn to drive in the direction where well-bred animals predominate, and if the fellow with his scrubs makes a sale he must drive to the butcher and ask him to buy his product.

Then there is another advantage in having the pure-bred herd in a community. We not only get lessons in good stock breeding from the features of this owner of intelligence, but when we desire to buy an animal, we may hitch up and drive to his place of residence, view his various animals, thus not only buying more intelligently, but as well bringing into our own domain just the type of animal which we are desirous of owning. It is very hard, even with a description from the buyer, to satisfactorily fill all orders and please him, for no two persons have the same ideal in the contour of an animal.

We have just recently noted with interest the value of these pure-bred animals to a community and how their distribution will affect the various lines of their special breeding. A prominent herd owner here died recently, and his heirs held a public auction, selling out every-



A Good Type of Dutch Belted Bull

are used for every pound of butter. This insures the right amount of salt when the butter is finished.

It is a very easy matter to work butter too much and have it greasy. We never work the butter with the hands, because the warmth of the hands will make it greasy and give it a salvy appearance. We use the lever worker and press the lever on the surface, and occasionally fold the butter over with a ladle. The lever of the butter worker or butter paddle is never allowed to slide over the surface of the butter, but it is pressed straight down when working the butter.

The butter is pressed into square one-pound prints, and carefully wrapped with parchment paper which has been soaked in salt water a few minutes before being used. The butter is sold in our local market at a good price.

W. H. UNDERWOOD.

thing. The most spirited bidding occurred at this sale, and this herd of animals went out pretty evenly distributed over our county and adjoining counties. A breeder of fine Jersey cows, losing his health, was forced to dispose of his herd of thirty-odd cows and heifers, which likewise were distributed to many different parts of our community.

In both instances these herds of animals drew large crowds of interested buyers, and being out of the ordinary in quality, netted the owners more than double the sum that ordinary stock would have done, yet in both instances the herd owners had spent only moderate sums in starting their herds, but had paid strict attention to their line of breeding and kept everything of the best blood and type in propagating their herds.

GEO. W. BROWN.

## LIKE A THIEF AT NIGHT THE CREAM SEPARATOR THAT CAN'T SKIM CLEAN

Dairy authorities the world over agree that the centrifugal separator is indispensable to the man who owns milk cows. And why? Simply because it saves his cream, hence his money. The more cream saved, the more money, that's sure. But unfortunately many separators do not save all the cream. And worse still the biggest of claims are made for these machines. Such separators are like a thief at night or the pickpocket who with an innocent face rubs our elbow and then robs us of our wallet. Because of inferior and out-of-date bowl construction, these separators, unknown to the users of them, daily lose a big percentage of the cream.

It is easy to be deceived into buying a "pickpocket" separator, but it is just as easy to avoid buying one if we will but take the advice of those whom we know are experienced separator judges. 99½ per cent of all expert creamery-men, butter manufacturers, and real separator authorities living to-day use DE LAVAL separators exclusively, for they have learned by experience that the DE LAVAL is the only separator that will save all the cream all the time under all conditions. And the reason for this fact is plain. It is found in the improved patent protected DE LAVAL "Alpha-Disc" separating bowl. It is different from any other bowl and its peculiar construction is the secret of DE LAVAL clean skimming. Ask for our illustrated catalog which explains the DE LAVAL bowl in detail as well as many other interesting features.

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## Team Feeding

THIS is the season when many of our farm teams fail to pay the cost of their keeping. It is therefore a good time to consider whether it may not be possible to reduce the cost of their keeping. No one finds fault with the standard ration of oats and hay, so far as results upon the horses are concerned, but it is expensive. Oats are nearly always relatively more expensive than other grains. On many farms it is difficult to spare land enough for this crop to supply the farm needs, and at best the crop is one which does not yield a large return an acre. Can a crop be grown which will replace oats in part and which it will cost less to grow or which can at least be grown on less land?

The Ohio Experiment Station has been carrying on an interesting experiment in comparing ear corn with oats as a feed for working horses. Several teams were used in the experiment, one horse in each team being fed wholly with oats and the other wholly with corn, so far as the grain ration was concerned. Under these conditions the amount and character of the work demanded of each horse was the same, making the comparison an ideal one. The horses were mature geldings doing ordinary farm work and not used for fast driving. Under these conditions it was found, contrary to the generally accepted belief, that the horses fed on corn did the work as well, showed as good spirit and endurance and continued in as good health as those fed on oats.

### Corn Alone is Not a Good Food

From southern Pennsylvania southward corn is very generally used as a feed for horses, but north of that locality the impression prevails that it is not a safe feed, particularly in warm weather. In conversation with a New York State veterinarian not long ago he told me that he had frequent cases of colic in that latitude due to this cause, while saying at the same time that such cases were rare farther south. I am at a loss to understand this and wish that some one might explain it satisfactorily. I have wondered whether the difference in the type of corn grown might account for it. Where corn is so generally fed, dent varieties are grown almost exclusively, while in the Northern localities referred to, flint varieties must generally be depended upon for corn which is to be ripened for husking. The grain of these varieties, being so much harder, may not be so well adapted to feeding whole as the softer dent varieties. If purchased corn is fed it is likely to be a dent variety, but is almost invariably shelled corn. In the above experiment it was found that shelled corn did not give as good results as ear corn, so that this again may make a difference.

Even though corn may not be a safe feed when constituting the exclusive grain ration, I think we are perfectly safe in feeding it once or twice a day. In these Ohio experiments the same weight of corn on the ear was fed as was being fed of oats. Upon weighing a mess of corn and comparing it with oats I found that equal weights were very nearly equal in bulk. In other words, if one is feeding four quarts of oats at a mess, he will be feeding just about the same weight of ear corn if he fills the same measure with ears broken enough to allow them to lie evenly. Now, under our conditions I think it is easier to make an acre of ground produce one hundred bushels of ears of corn than it is to make it produce fifty bushels of oats, while the labor cost is not proportionally greater. I am determined, therefore, to grow more corn for horse feed.

### A Useful Supplemental Food

Another crop which will aid in this winter-feeding problem is carrots. These are perfectly safe and in fact I think will tend to mitigate any danger which might arise from corn feeding if used at the same time. Carrots are not a particularly cheap crop to grow. I find that the labor cost of my own crop the present season has been about twenty-five cents a bushel. This is too high, as the past season was an unusually unfavorable one for roots, owing to the long and severe drought of late summer and autumn, which seriously reduced yields. Even at this cost they are a good crop to grow, since a bushel of carrots can be made to save a bushel of fifty or sixty cent oats. The amount of land required to grow them is very small. Some parties report feeding mangel-wurzels with good results, and I find that colts also take kindly to turnips. Roots are well worth considering in this connection.

So long as it was possible to furnish the three kinds of feed, my horses have had the present winter, carrots in the morning, oats at noon and ear corn at night, this I consider nearly an ideal ration. FRED W. CARD.

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# Poultry Raising

## Profits in Ducks

**W**HEN rightly handled I am quite sure there is no poultry more profitable than ducks, but when improperly kept and fed they will lose money for the owner about as fast as any live stock he can keep. So before starting into the duck business to any extent it is well for one to be sure that he has a thorough understanding of all the details.

The first thing to look for is a ready market for the products, where the stock can be disposed of when fit to go, and do it quickly and economically. In a way, raising ducks is like raising hogs—the best profits are when they are gaining rapidly, but just as soon as they reach a marketable size they should be sold at once. A duck should be pushed for all it is worth from the time it leaves the shell, so as to get all flesh possible on it in a short space of time.

To raise them successfully on any large scale incubators and brooders must be used. Yet on farms throughout the country quite large numbers of ducks are raised by natural means.

We used to think, and a good many now believe, that to raise ducks without a creek or pond for them to run to and swim in was an impossibility, but such has proved not to be the case. I believe that a flock of ducks may be kept for less expense when they have a stream of water to work along than when all the water is supplied to them in dishes, and I have found that the eggs hatch better when there is plenty of water, and the flocks always keep cleaner and look better. But they may be raised successfully without water, except for drinking purposes. Both young and old ducks when eating require water to drink.

Like raising chickens and turkeys, one's success with ducks depends very largely upon the healthfulness and vigor of the stock. Ducks that have been improperly inbred and are weak and lack thriftiness will not produce good, strong ducklings. No matter what breed is kept, look carefully and select for keeping over only the most active and thrifty birds.

As a rule duck eggs hatch well, especially when the breeders have plenty of grass range. Give the ducklings pens fifteen or twenty feet square at the start, and some shade should be provided when the weather becomes warm. Do not allow very young ducks to go into cold water, nor into any water on a cold day.

In feeding I generally scald all the meal given them for the first two weeks. Curd made from sour milk is an excellent food; so is mashed potatoes mixed with equal parts of corn meal and middlings. After three weeks old considerable green food can be given, and some meat scraps, and plenty of coarse sand for grit should be supplied.

If one is so situated as to give the needed attention, a flock of ducks may be made very profitable.

VINCENT M. COUCH.

## Growing Pigeons

**T**HE easiest, and perhaps the best, way to work into growing pigeons is to buy small birds, or squabs, as they are called, when they are just beginning to fly. This may be in June, July or August. The next spring these birds will do to breed.

These may be mated pair by pair, putting two in a place by themselves. If they both go about strutting, cooing and now and then fighting, you may be sure they are males. Change till you get a pair that act like lovers toward each other. It is not easy to tell the sexes apart. Only experience will do it. Once mated the birds are apt to remain faithful to each other as long as they live.

Only two eggs are laid at a litter, although two more may be laid before the first hatched are feathered out. An interesting part of it is that both the male and the female will take turns in sitting on the eggs for hatching. It is believed that there will be one male and one female from each pair of eggs so hatched.

You may feed the young pigeons out of your hand if you have only a few of them, giving them bread crumbed up and soaked a little, or soaked grain. They like millet and clover seed. Hemp seed is fine for them, but not in too large quantities. A steady feed for them may be small-kerneled corn, wheat and buckwheat, mixed—one quart of the corn and wheat to one pint of the buckwheat. New grain is not good for them, neither is rye, unhulled oats or musty grain. This is for the older birds. The younger ones thrive on equal parts of wheat bran and corn meal fed in hoppers. Shells should be kept where they can get them when desired.

Everything ought to be kept neat around the house. Fresh sand and gravel may be strewn about the house now and then. Water must not be overlooked. Squabs ought to be ready for market in from three to four weeks. They are dressed just as chickens. Then they may be tied in pairs and sold together. One may get as many as five pairs of squabs from each male and female in a season.

Pigeons are liable to have canker of the throat, smallpox and wing disease. For the former, powdered alum is good. Take the affected birds out of the flock. For smallpox, which shows in sore heads, separate the diseased birds and treat them by rubbing a solution of blue vitriol on their heads a few times. Wing disease may be treated by rubbing strong spirits of camphor or iodine on the inflamed spot.

Lice must be fought constantly, the same methods being used as with chickens.

E. L. VINCENT.

## Tried Remedies

**I**F CHARCOAL is fed twice a week it will help to insure the chickens against cholera. Charcoal purifies the system of poisonous gases and germs and keeps the poultry in a healthy condition.

Two or three applications of a mixture of sulphur and lard will cure scabby legs. It should be rubbed in well, as this disease is caused by a small insect burrowing itself under the scales, and the sulphur must soak into them in order to kill them.

After one of those very cold, frosty nights when the mercury falls below zero, and it is feared that the chickens have had too much of it, it is a good plan to give them some lukewarm water in the morning and pour a little kerosene over it. The chickens will not drink much of this, but they will each take at least one good gargle of it before they know it has a bad taste, and it will protect them against roup and diphtheria. After it is thought that they have all had a dose of it, it should be removed and a supply of fresh water be given them.

GREGOR H. GLITZKE.

## The Labor Cost of Keeping Poultry

**I**T is easy to calculate a good profit from a flock of hens if we do not take any account of the labor and the feed cost. As poultry on a farm gather a large part of their feed from scattered grain, worms, bugs and other things that have no money value, we are very apt to give the feed cost but little consideration except when we find them making an attack upon the wheat, oats and corn crops. Then we decide that the hens do not half pay their keep; but the seasons in which they do damage to the crops are necessarily short, and when we see well-filled egg baskets we forget the damage done to crops.

I do not write this to discourage poultry raising on the farm, but rather to encourage the idea of putting the industry on a businesslike basis, where the hens will be credited with what they do and are charged with the cost of care and keep. Failure in the poultry business is often the result of not counting the cost, coupled with lack of experience.

I have kept an account of the labor cost of caring for fifty hens for a period of twenty-two days during December. The weather was favorable and the poultry had the benefit of free range and the privilege of gathering a large part of their feed from the stable, fields and straw and chaff stacks. The labor would be doubled in the dead of winter, and probably more when the hens could not be out. For the twenty-two days I find that I spent 3.9 hours caring for the chickens. At the same rate I find that it would be 4.5 hours, or nearly one half day, for one month. This at twenty cents an hour, or two dollars a day, would cost ninety cents a month for labor alone, or nearly two cents a hen per month.

A. J. LEGG.

## A Cure for Limber Neck

**L**AST fall my chickens began to get sick. They were the finest ones I had, and nearly a hundred died before I found out what was wrong with them. Their heads were red and they looked healthy. A friend told me to use coal oil and flour, taking a teaspoonful of coal oil and enough flour to make it crumbly, something like pills, and just throw it around to the flock of fowls. Since I began using it I haven't had any more trouble with my poultry. MRS. J. LEE JAMISON.

**COLD - WAVE**

Fireproof and Insurable Now and Always Have Been

**Queen**

on top of this incubator does not affect its percent hatching quality. The QUEEN is built to hatch in cold weather. Its high-power heater, and easy-working regulator, insure plenty of even heat. Thousands and thousands of poultry raisers, know Queen Machines get better results than others. I want you to know it. Write today for my free

**QUEEN INCUBATOR and BROODER BOOK**

and let me prove why my machines are ahead, how you can make more money with them. Give me the chance to "show you."

**QUEEN INCUBATOR CO.,**  
 Wickstrum, Box 57, Lincoln, Nebr.

**Note Sizes and Prices**

80 Eggs,.....	\$ 8.00	180 Eggs,.....	\$12.50
130 Eggs,.....	10.00	240 Eggs,.....	15.00
360 Eggs,.....	\$18.50		

For these prices I Pay Freight and give you strong and binding 5-year guaranty and 90 days Free Trial.

## This Incubator Increases Poultry Profits Amazingly

No ordinary Incubator could possibly show a record of success to compare with this wonderful machine. It has added enormous sums to the profits of Poultry Raisers. It stands in a class by itself.

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**Sure Hatch Incubator BOOK FREE**

This book tells the secret of its marvelous success as a hatcher. It tells some startling facts about incubators—facts you should know before buying. Practically turns all makes of incubators inside out. Shows why many that sell at "bargain" prices hatch more trouble than chicks. Explains the correct principles of incubator construction. Don't buy an incubator at any price until you read this great book.

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 Box 66, Fremont, Neb., or Dept. 66, Indianapolis, Ind.

**Get My Poultry Book—Free Trial and Low Price First**

Start now. Especially if you are a beginner, you need my free poultry guide, containing my 50 years of experience. You need my 84-day Free Trial. You need the

**CHATHAM INCUBATOR**

because it is proof against inexperience. And you are entitled to my Low Price. Don't risk your money or your success. Don't delay. Get your profits this spring. Write nearest office.

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 318 W. 10th St., Kansas City, Mo.  
 82 E. 3rd St., St. Paul, Minn.  
 Dept. 1, Portland, Oregon

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The Lowest Priced Standard Machine. Certain results instead of experiments. Send for great, free book, "Poultry for Profit." Finely illustrated and covers every poultry topic. Worth dollars but mailed free, postpaid. Don't wait—SEND NOW to

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**Hatch Chickens by Steam**

Stahl "Wood-on-Hen" and "Excelator" Incubators assure big hatches. Well-built, reliable, practical—thousands in use. Catalogue free.

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Write today for our FREE Poultry book, which tells how you can accomplish these results. Crammed with profit-producing poultry information and fully illustrated. Best in the world as proved by over 600 testers.

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**GET MORE EGGS**

Twice as many by feeding green cut bone.

**MANN'S BONE CUTTER** 10 Days Free Trial. No money in advance. Cat'g free.

**F. W. Mann Co., Box 32, Milford, Mass.**

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For cutting green bones. For the poultryman. Best in the world. Lowest in price. Send for circular and testimonials. Wilson Bros., Box 200, Easton, Pa.

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Three-pound White Orpington Rooster, Ten Weeks Old, Raised by the Philo System

## \$200<sup>00</sup> In Six Months From 20 Hens

To the average poultryman that would seem impossible, and when we tell you that we have actually done a \$500 poultry business with 20 hens on a corner in the city garden 30 feet wide by 40 feet long, we are simply stating facts. It will not be possible to get such returns by any one of the systems of poultry keeping recommended and practiced by the American people, still it is an easy matter when the new PHILO SYSTEM is adopted.

The Philo System is unlike all other ways of keeping poultry, and in many respects is just the reverse, accomplishing things in poultry work that have always been considered impossible, and getting unheard of results that are hard to believe without seeing; however, the facts remain the same and we can prove to you every word of the above statement.

### The New System Covers all Branches of the Work Necessary for Success

from selecting the breeders to marketing the product. It tells how to get eggs that will hatch, how to hatch nearly every egg and how to raise nearly all the chicks hatched. It gives complete plans in detail how to make everything necessary to run the business and at less than half the cost required to handle the poultry business in any other manner. There is nothing complicated about the work and any man or woman that can handle a saw and hammer can do the work.

**TWO-POUND BROILERS IN EIGHT WEEKS** are raised in space of less than a square foot to the broiler without any loss, and the broilers are of the very best quality, bringing here three cents per pound above the highest market price.

### Our Six Months Old Pullets are Laying at the Rate of 24 Eggs Each Per Month

in a space of two square feet for each bird. No green cut bone of any description is fed, and the food used is inexpensive as compared with food others are using.

Our new book, the Philo System of Progressive Poultry Keeping, gives full particulars regarding these wonderful discoveries with simple, easy to understand directions that are right to the point, and 15 pages of illustrations showing all branches of the work from start to finish.

### Don't Let the Chicks Die in the Shell

One of our secrets of success is to save all the chickens that are fully developed at hatching time, whether they can crack the shell or not. It's a simple trick and believed to be the secret of the Ancient Egyptians and Chinese, which enabled them to sell the chicks at 10 cents a dozen.

### Chickens Feed at 15 Cents a Bushel

Our book tells how to make the best green food with but little trouble and have a good supply any day in the year, winter or summer. It is just as impossible to get a large egg yield without green food as it is to keep a cow without hay or fodder.

### Our New Brooder Saves 2 Cents on Each Chicken

No lamp required. No danger of chilling, overheating or burning up the chickens as with brooders using lamps or any kind of fire. They also keep all the lice off the chickens automatically or kill any that may be on when placed in the brooder. Our book gives full plans and the right to make and use them. One can be easily made in an hour at a cost of 25 to 50 cents.

Send \$1 direct to the publisher and a copy of the latest revised edition of the book will be sent you by return mail.

**E. R. PHILO, Publisher**  
117 Third St., Elmira, N. Y.

## A FEW TESTIMONIALS

VALLEY FALLS, N. Y., Sept. 5, 1907.  
It was my privilege to spend a week in Elmira during August, during which time I saw the practical working of the Philo System of Keeping Poultry, and was surprised at the results accomplished in a small corner of a city yard. "Seeing is believing," they say, and if I had not seen, it would have been hard to believe that such results could have followed so small an outlay of space, time and money.  
(Rev.) W. W. Cox.

Oct. 22, 1908.  
P. S.—A year's observation, and some experience of my own, confirm me in what I wrote Sept. 5, 1907. The System has been tried so long and by so many that there can be no doubt as to its worth and adaptability. It is especially valuable to parties having but a small place for chickens; seven feet square is plenty for a flock of seven.  
(Rev.) W. W. Cox.

RANDOLPHVILLE, N. Y., Dec. 5, 1908.  
DEAR SIR:—Last spring we purchased your book entitled the "Philo System" and used your heatless brooders last spring and summer. The same has been a great help to us in raising the chicks in the health and mortality. The chicks being stronger and healthier than those raised in the brooders with supplied heat. We believe this brooder is the best thing out yet for raising chicks successfully. We put 25,000 chicks through your heatless brooders this last season and expect to use it more completely this coming season. We have had some of the most noted poultrymen from all over the U. S. here, also a large amount of visitors who come daily to our plant and without any exception they pronounce our stock the finest and healthiest they have seen anywhere this year.  
Respectfully yours,  
W. R. CURTIS & Co.

SEANATELES, N. Y., May 5, 1908.  
One article of the Philo System entitled "A Trick of the Trade" has been worth three times the amount the book cost. I saved on my last hatch fifty chicks which are doing nicely.  
W. B. REASE.

# Poultry Raising

## At Hatching Time

THE difficulties during the hatching season are sometimes the most discouraging features of the whole business. To bring out good, strong, thrifty broods is a matter that often seems to be beyond the owner's control. The fault naturally is laid to the eggs, and no doubt in many instances this is right.

The climatic changes have much to do with the poultry and with the hatching of the eggs in spring, especially in early spring. The hens from which we save eggs for hatching must be handled in such a way as not to be affected by sudden changes of the elements or by continued cold weather during the breeding season. The eggs may be fertile enough at the beginning, but the germs are weak, the vitality low, and slight mishaps may then produce disastrous results.

If we do not have good, strong, vigorous birds from which to breed we cannot look for a very hardy lot of chicks nor expect to get eggs that will hatch well.

When the temperature falls about twenty or thirty degrees within twenty-four hours we can easily understand how the delicate germ life of the eggs may be ruined. In early hatching, either with hens or incubators, it involves a good deal of watchfulness on the part of the attendant. When hens are laying out of the regular season the fertile germs of the eggs are especially low in vitality, so to get good results at this time all conditions must be most favorable.

Losses come to the poultry raiser in various ways during the hatching season. The two most common are probably chicks dying in the shell and from bowel trouble when the chicks are from five to eight days old. The care of chicks within the shell is the important part of artificial incubation. Uneven heat in the egg chamber, overheating, allowing the eggs to become chilled, too little air in the egg chamber, too much moisture, too dry, so that the air cell becomes too large and the membranous lining hard and tough—all these conditions and many more are the cause of chicks failing to grow and develop while yet in the shell, and therefore die when the time comes for them to leave it. Then lack of vitality in the breeding stock is the source of a great deal of this trouble.

A chick meets with a great change when it comes from the shell into the open air, and unless it is well prepared for this change it will not be likely to last very long after it hatches. Bowel trouble, I believe, is the result of exposure in most cases, and for this reason great care should be taken at the time of hatching to see that none gets chilled.  
V. M. Couch.

## Poultry Pickings

Do not be satisfied until you have the best hens you can get.

Keep plenty of grit on hand, especially in your own disposition.

You will hunt a long time before you will find a better drink for hens than milk.

There is no question that well-bred cows and horses are best. Why not well-bred poultry?

A change of feed will often set hens that have just about stopped laying to doing business again.

Nobody ever discovered anything that would take the place of cleanliness in the houses as an incentive to good work. No one ever will. It cannot be done.

One thing is certain, comfort and lice do not go well together. Get rid of the lice and make your birds happier. They will then make you happy by their doings in the nest box.

By procuring good stock one may add at least twenty-five per cent to the value of his egg production without paying out a cent more for feed. The percentage of increase may be even more than this.

When hens lay soft-shelled eggs one of two things is the matter. Either there is not grit enough in the feed or the birds are too fat. If it is lack of grit, lay in a stock of shells and feed all the fowls will eat. If the hens are too fat, stop feeding so much meat and grain and give more vegetables and other green food.  
E. L. V.

## Spring Work in the Poultry Yard

IT is none too early to begin planning for the coming season's poultry work. Plans that are carefully made will assist considerably when the time arrives. If a man knows what he wants to do, there is more hope of his doing it than if he goes at it in an aimless sort of way.

The effect of cold weather upon the hens this winter must have been severe, for fresh eggs have not been as scarce and high in central New York State for a number of years. This has made a good demand for storage eggs and will make a good market for fresh spring and summer eggs. So it's "up to us" to lay our plans so as to insure a good poultry crop this year.

If there are more chicks to be raised this year than last, it will probably mean more coops, more or larger pens and runs and more feed and drinking dishes. Many of these things can be made at home during bad weather. It pays to have the coops well made, so as to keep out all small animals. The loss from one night's raid of one of these marauders may be greater than the expense of making a dozen coops.

Few things will add more to the success of a poultry farmer than locating permanently in a place. Then he can build, plant trees and make other improvements and have them all count. There are no two crops, if rightly handled, that work better together than fruit and poultry. The land that produces a hundred dollars' worth of fruit will grow the same amount in poultry, and at the same time each makes the other more profitable.  
V. M. C.

## Keep the Fat Down

A FEW weeks before the hatching season begins the chickens should have special attention. They might be too fat, and in some cases too poor, to lay eggs that will hatch well. Usually they are too fat at this time of the year. It is not desirable at all that they be fat. Indeed, to have them a little poor is better than to have them very fat. But there is a "just right" condition, and we will find it about half way between the two extremes.

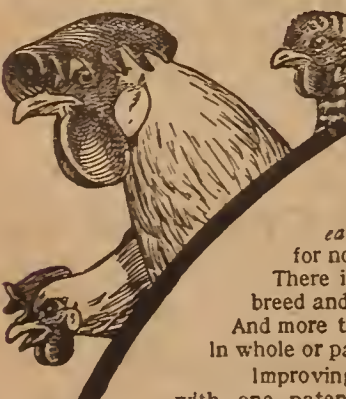
The chickens should be examined. If they are found to be too fat, it might be that they have been overfed on a certain fat-producing food. If so, they should be fed with more care during this season. But where the chicks lay on very much fat I think it will be found that they have had insufficient exercise. It is very essential that the chickens get much exercise at this time of the year. It keeps down the fat and starts the blood in circulation, and gives that glow of health which is so desirable.  
GREGOR H. GLITZKE.

## BROWN FENCE

We make an extra heavy fence in which every wire—both strand and stay—are No. 9 gage. These fences are made of the best fence material in the world—Hard, High Carbon "Double Strength" Coiled Spring Steel Wire, thickly galvanized. A more substantial and durable fence was never stapled to posts. 15 to 35¢ per Rod delivered—We pay freight. Send for our free sample and catalog showing 150 styles of fences. Send today.

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**SAMPLE FREE**



## It Pays the Grocery Bill

On thousands of farms, a few scrawny hens cluck and scratch and eat and—that's all. Good feed worth good money goes into their crops for no return at all, simply because natural needs of hen nature are not satisfied. There isn't a hen but will lay—her performance, of course, depending somewhat on breed and age—if Dr. Hess Poultry Pan-a-ce-a is given regularly in soft feed once a day. And more than that, these lazy hens can be made so prolific that they'll pay the grocery bill, in whole or part, by the use of this same preparation.

Improving digestion is the secret of the whole business. While experiments were being made with one patent feed and another, Dr. Hess (M.D., D.V.S.) believed the result could only be accomplished by aiding the digestion.

# DR. HESS Poultry PAN-A-CE-A

is his solution of the problem, and it has the endorsement of thousands and thousands of poultrymen all over this continent. Increasing the digestion of stock and poultry, and thereby increasing growth and egg production, has become known as "The Dr. Hess Idea." Every eminent writer and every college of medicine is behind "The Dr. Hess Idea." Every ingredient in Dr. Hess Poultry Pan-a-ce-a is a recognized specific for producing the particular result desired. It also cures gapes, cholera, roup and all digestive disorders, and is positively guaranteed. Pan-a-ce-a fed to the little chicks after they are three days old will carry them safely to maturity, and costs less than a penny a day for thirty fowls.

**1½ lbs 25c; mail or express 40c**  
**5 lbs 60c; 12 lbs \$1.25; 25 lb. pall, \$2.50**

{ Except in Canada and extreme West and South. }

**DR. HESS & CLARK, Ashland, Ohio.**

Send 2c for Dr. Hess 48 page poultry book, free.

## DR. HESS STOCK FOOD

that means trouble and loss. Dr. Hess believes it possible to maintain animal digestion at a healthy maximum performance, right up to the finish, without a check to growth or performance. Dr. Hess Stock Food does this; it contains bitter tonics for the digestion; iron for the blood, and nitrates to cleanse out poisonous waste matter. It increases appetite; makes assimilation a perfect process and wards off disease; it is fed in small doses but twice a day. Nothing puts a horse in such fine condition as Dr. Hess Stock Food.

**SOLD ON A WRITTEN GUARANTEE.**

**100 lbs. \$5.00; 25 lb. pall \$1.60.** Except in Canada and extreme West and South. Smaller quantities at a slight advance.

Send 2c for Dr. Hess Stock Book, free.

## INSTANT LOUSE KILLER KILLS LICE



# Farm Notes

## Principles Underlying Soil Management

**L**OAMY soils are those containing a noticeable proportion of decayed vegetable or animal matter. The greater the proportion of such matter, the darker these soils become in color, the greater their tendency to hold moisture and the ranker the vegetation growing on them. So much so is this the case that these very dark soils are quite unsuitable for grain crops, with the exception of some kinds of oats, on account of the tendency to lodge before the harvest. The natural explanation of the richness of such soils is that the decayed matter is made up of the same materials that enter into the composition of the growing plant, and that it has arrived at a condition of solubility which makes it available for absorption by the roots of the plants.

When the proportion of this organic matter, as it is called, from having been formed by the decay of the organized bodies, becomes excessive, the soil is said to be moory, and in still greater excess it forms peat. Peat soils in their unclaimed condition are not fertile soils, partly because their excessive organic composition tends to produce injurious acids during the process of decay, partly because some of these products act as preservatives and prevent decay going to the full extent, partly because of their deficiency in the matter derived from the decay of rocks, otherwise inorganic matter, and very largely because of the large amount of water retained by them.

### Soil and Subsoil

When any soil has been kept under cultivation for a long period, that soil will be quite uniform in every way to the depth reached by the processes of tillage, but beyond that depth the soil will show at least a lighter color than the top soil, if not other differences. The lighter-colored soil is sometimes called subsoil. More strictly speaking, the subsoil may be said to begin where there is a marked difference from the upper soil, irrespective of depth of cultivation. Soil and subsoil are sometimes found to be similar in general character, the leading difference being the higher proportion of organic matter in the soil than in the subsoil, as would be natural to expect. Frequently soil and subsoil are quite different in type. The character of the subsoil even at a considerable depth may affect the value of the soil. For instance, a tough, impervious subsoil may make even a sandy soil wet by preventing the passage of water, and may cause a soil, good in every other respect, to be too wet for tillage purposes. As a general rule, an open, porous subsoil is to be preferred to a tenacious one.

Any one who has had experience in tillage knows that it is a bad thing to cultivate the soil to such a depth that the top soil is buried and the subsoil brought to the top. That is to say, such a process is bad if the field treated in this way is to be sown with a crop shortly afterward. The popular view of the subsoil is that it is raw and sour and that it requires exposure to the air to make it mellow and sweet. When a subsoil has been exposed in this way for several months it loses its raw character and with ordinary treatment may become a fertile soil. This result is attributed to the action of the air, oxidation, as it is called, but modern research has shown that oxidation is only part of the cause of improvement. It will be remembered that the soil is composed largely of decayed rocks, which supply what is called the inorganic matter or the mineral matter of the soil, and in a variable degree of decayed plants and animals, which supply the organic matter. Now inorganic matter brought up from a depth to which little, if any, air penetrates is frequently sour from incomplete oxidation. This loses its acidity and becomes wholesome for plants by simple exposure to the air, from which it draws oxygen, thus becoming completely oxidized.

### Soil Changes Due to Bacterial Action

The case is quite different with organic matter. Wherever it is found in process of active decay it is invariably associated with microbes of different kinds. Microbes are divided into two great classes—those which require air for their existence, and those which can get on without air. The microbes which prepare decaying organic matter for the use of growing plants are of the air-loving class, consequently few, if any, are found in the subsoil, and those oc-

curing in the soil are killed when buried deeply. It is the want of beneficial microbes in the subsoil which is largely responsible for its infertile character. When the subsoil is exposed for some time, particularly in mild weather, the number of microbes increases to the requisite degree, and the beneficial changes can go on, ultimately giving the exposed subsoil the character of soil.

### Value of Nitrifying Organisms

The soil microbes of greatest interest to the farmer are the nitrifying organisms. These are only found in the upper soil, where the air can reach them. When organic matter decays it becomes humus, which is the dark-colored substance that characterizes loamy soils. This humus decomposes principally into water, carbonic acid and ammonia under the influence of the ordinary microbes of decay. The water and the carbonic acid play their own part, but the ammonia requires further conversion before the plants can use it. The agents of this conversion are the nitrifying organisms, which convert the ammonia through various stages till it is ultimately found as a nitrate of some kind—it may be nitrate of lime or nitrate of potash or nitrate of soda. It is in the nitrate form alone that the roots of plants can use it.

This is a short account of the process of nitrification, and its discovery has gone a long way to explain what was formerly unaccountable. Nitrification goes on practically all the year round when the temperature is a few degrees above freezing point, but the microbes are most active when the soil is warm in summer. This seems a special arrangement of Providence. Plants are dormant in winter and require no feeding. They make some demand on the soil in spring, but their principal demand is during the rapid growth of summer. The temperature at the different seasons regulates the rate of nitrification nicely, according to the wants of the plants.

The process further illustrates the economy of Nature. Certain soils have already been described as being very retentive of plant food, while others part with their fertility when the rain washes through them. This remark applies to most of the substances which plants require, but it has been discovered that no soil is retentive of nitrates. If a soil of any class whatever becomes full of nitrates, and no crop is growing on that soil, those nitrates are liable to be washed away by the first heavy rain. Hence we see the advantage of the progressive formation of nitrates in maintaining the continued fertility of the soil.

W. R. GILBERT.

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## Ertel's POULTRY DIARY

is our new book for the use of poultry raisers. Keep account of your eggs, chicks and profits. Our Diary shows how and also tells about our new Incubators. It tells why our prices are so low. The Diary is free. Better write for it today. Tell us if you are thinking of buying an Incubator and what size you want. We pay freight. Geo. Ertel Co., Quincy, Ill.

# Square Deals and Square Dealers

Your dealer is in business for himself, but—He will surely give you a square deal—otherwise you would quit him and he must hold your trade to stay in business. Therefore—

His best interest depends upon his serving your best interest. The two are really one. Now—

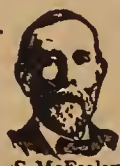
Ninety-nine out of every hundred dealers will tell you that Rex Flintkote Roofing gives a protective service that is not only the most positive against weather and fire, but cheapest in cost per year of service.

The facts—long years of satisfactory wear—prove this and your dealer knows the facts—it's his business to.

This endorsement of your dealer is your greatest protection in buying roofing.

Read what trustworthy dealers say about

## REX FLINTKOTE ROOFING



S. McFeeley

### J. C. AMES LUMBER CO.

Streator, Ill.

Gentlemen: Since we took the agency for Rex Flintkote Roofing, I have talked, recommended and guaranteed it. I believe it is the best made—and customers don't have to take my word altogether, for I can take them where it shows for itself what it will do.

Yours truly,  
S. McFeeley, Vice-President



C. D. Streeter

### KEOKUK LUMBER CO.

Keokuk, Iowa, Sept. 11, '07

Gentlemen: Last year we sold a car, and this year we will sell three cars. Every roll we have sold has given perfect satisfaction. We fully expect to sell at least five cars next year.

Yours truly,  
KEOKUK LUMBER COMPANY  
C. D. Streeter



George Bell

### BELL BROS.

Est. 1879

Wheeling, W. Va., Mar. 10, '06  
Gentlemen: We have been using and selling Rex Flintkote Roofing for several years and know that it is properly laid it will outlive any composition roofing, tin or shingles. Yours truly,  
BELL BROS.

### COMBS LUMBER CO.

Lexington, Ky., Sept. 16, '07

Gentlemen: Eight years ago, when we took the Rex Flintkote agency here, we sold eight squares. This year we have sold three carloads. It always stays sold. There is no occasion to "make good" on account of unsatisfactory roofs.

Yours very truly,  
COMBS LUMBER CO.



J. H. Combs

### THE ARNDT HARDWARE

Blair, Neb., Dec. 12, '08

Gentlemen: Beginning small some years ago, we now order Rex Flintkote in carloads. Our largest customers are those who bought it in the first year. We have not had a single complaint; but instead, every one praises it.

Yours truly,  
F. H. ARNDT



F. H. Arndt

### SCHUNK-MARQUARDT CO.

Toledo, O., Dec. 22, '08

We have sold Rex Flintkote for years, and knowing it as we do, recommend it as the best. It's a pleasure to sell it for it gives entire satisfaction.

Yours truly,  
SCHUNK-MARQUARDT CO.



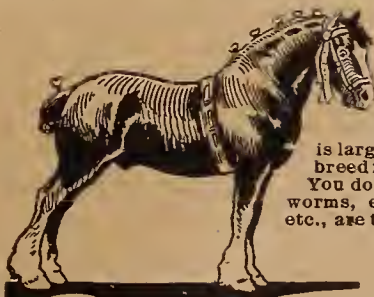
T. Schunk

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## PRIZE WINNERS



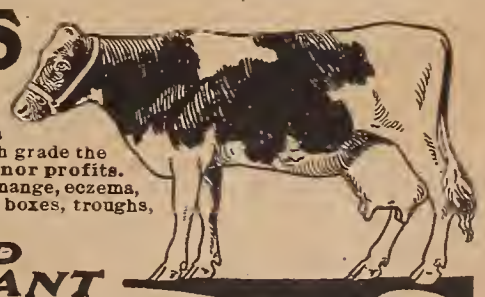
### And How to Raise Them

Did you ever ask the man who raises prize winning farm stock how he does it? He will tell you that his success is largely due to the care he gives his animals. No matter how high grade the breed may be if you don't give it the right care you won't get prizes nor profits. You don't find prize-winners pestered with lice, mites, ticks, scab, mange, eczema, worms, etc. No, sir! Their owners see to it that barns, stalls, feed boxes, troughs, etc., are thoroughly disinfected. They dip their animals with

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Gentlemen:—Would not take \$20 for my incubator, if I couldn't get another. I set it 3 times—from the 1st hatch I got 105 chicks; from 2d, 112; and from 3d, 116 chicks from 120 eggs. Chickens are healthy and strong, and I lost hardly one. I think you can sell 12 here. Mrs. M. Fisher, Wakonda, S. D.

### WISCONSIN INCUBATOR CO.

Gentlemen:—I received your incubator and brooder last March. Am perfectly satisfied with results. From 120 eggs, (20 not fertile), I got 98 chicks, making 98 per cent. Don't think that I could have equalled this with any other incubator. Arthur S. Allen, Thayer, Ills.



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### WISCONSIN INCUBATOR CO.

Dear Sirs: The three Incubators I bought from you gave good results and are all O. K. They hatched on the average 95 per cent. I will give you another order for more Incubators and Brooders. George Brinkman, Fairmount Minn.



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## Sugar Weather

JUST about now, when, day by day, the sun climbs higher and stays up longer, the snow gets soft under his rays that in the still woods have heat in them. But in the clear and star-lit nights it hardens up again. "Regular sugar weather," we say. On top of the ground it looks like winter just as much as ever, and, like any other guest that has outstayed his welcome, it seems, in our impatience, as if the cold weather would stay forever. But underground, way down there in the dark, the root tips, fumbling around among the stones and poking through the clay, are not so stupid as they seem. They have got the word that spring is coming long before we have who think we are so smart. They have a long day's work ahead of them and they have put the kettle on for breakfast. The rains that have pelted down, the snows that have sifted down, have rinsed the air all clean, and these rinsings have seeped down through the soil to where the root tips are, on their way dissolving and dissolving, and the root tips suck in the moisture and concoct from it a sort of—shall we say "breast milk" for the baby buds that mean to swell, and ultimately lengthen out like arms and clap their five-fingered hands of leaves when the happy summer comes again, nourishing and warming sap, sweetened to taste for the young bark that circles about the tree and marks another birthday for it.

\* \* \*

By what magic this raw, insipid earth juice that no moving creature particularly cares for is transformed into the delicately flavored tree juice that every moving creature is crazy for; by what magic it jets upward forty feet straight up into the air against the steady, unrelenting down pull of gravity, are things difficult to understand. Never mind, the fact is there. And the tongues of sap suckers, two legged, but the one winged, and the other walking, the one with his clothes grown fast, and the other with detachable clothing, are applied to the holes that they have dug in the bark, the one with the cutter that is stuck fast to its face, and the other with the cutter that can be folded up, put into a pocket and transferred. Only for a short season can the sap sucker that has his clothing and his tools a part of his body enjoy this pleasant sweetness of the sap. But the other kind prolongs the season for all the year, and throughout the sugar bush the drops are trickling and drizzling from the spouts driven into the trees like veterinaries' fleams, trickling and drizzling into the buckets, which will be collected with patient labor and the water driven off by boiling, so that in the days to come, when the maple juice is not so sweet, the palate will be gratified just the same.

Our forefathers would have been glad to trade off their "tree sugar," brown and homely, with its wild taste that the open kettle gave to it, partly from the smoke that blew across, partly from the caramelizing of the sugar in the bottom of the kettle, too hot, and partly from the tang of twigs and bark that fell in and boiled—they would gladly have traded off their "tree sugar" for "store sugar." And we would gladly trade off our "store sugar," chemically pure, beautifully white, the very same cane sugar as that which gives the maple juice its taste, for the real "tree sugar" if we could get it. We miss the wildness, now that it is so hard to come by. It is the coin that rolls away we scramble for.

\* \* \*

How the sweet sap is concocted from the raw earth juice and how it flouts the law of gravitation, and poohpoohs all talk about water finding its level, are things difficult to understand; the main thing is that the sap is there. And the next main thing is how to bleed the tree of just as much of it as possible without putting the tree out of business. When a commission is appointed to consider maple uplift, this will be one of the points brought up before it for consideration. It is more than a point; it is the whole side of the house for bigness. All the whole world of living creatures in the stage where their clothing and their working tools grow fast to their bodies, though they live by plundering their appointed victims, somehow manage not to disturb the balance of things when they

are in a wild state. Just about so many of each kind of creatures, year after year, would be down in the census books of the woods, if there were a census of the woods. But when the animal comes along that can add on or take off its clothing, that has its working tools equally detachable, and so, instead of depending upon wild Nature for its rations, makes its own rations, the natural instinctive balance of things is upset, and the problem of all humankind is not alone how much can be robbed from the maple tree of its life blood, but how much can be safely stolen from the soil, how much will the bee stand for, how much will the hen put up with, how can the cow be exploited, and even the farmer himself, who tills the soil, who keeps the bees, who feeds the hens, who tends the cows—how much can he be exploited and still keep him going? A point for consideration? Why, a point has no length, no breadth, no thickness. This question is no point; it is the biggest problem going.

\* \* \*

## Buy Bound Books

WE HUMAN beings are social animals and require the company of our kind. But the mere actual, physical, eye-to-eye presence of other human beings is not always the best of company. There are such things as spats, which are not notably improving, and nine times out of ten, conversation is mere gabble and gossip, which is the dish water of the soul. On the farm there may be less opportunity for that sort of company than in those other communities in which human beings are more thickly planted—too thickly planted, we may shrewdly guess, for thriving—but there is no occasion for the farmer to whimper for his lonely lot on that account. Most of us have learned to read, and that opens to us all society of a far more entertaining kind, society for which we do not have to dress up, whose talk we can begin and shut up when we want to, without bad manners. Balls and parties and pink teas town people have to their satiety, but the opportunity for calm, uninterrupted reading, such as the farmer has at a quiet season of the year like this, they lack continually and complain about it.

Nobody buys the number of books he really ought to, and while the farmer is probably no guiltier in this respect, still he has nothing to brag of. Story books he ought to get once in a while, no doubt, but not much oftener; certainly not twice in a while. Standard works on agriculture—that doesn't require argument. He is little better than a fool who doesn't inform himself fully as to his own craft, not alone as to what is merely "practical" (a word too often taken to mean the same as "unprogressive"), but also as to what is "theoretical" (a word too often taken to mean the same as "nonsensical"). History—Well, that is of doubtful benefit to most of us, who lack the power to discern what lay behind the scuffles and the squabbles of kings and bigbugs of olden times. History is like the Irishman's pig that was only got to Dublin by making it think it was going to Cork. You can get clearer notions of what really happened by reading something else. But whatever else the farmer ought to buy and read, he certainly should stock up well with sound and serious books on economics, so as to find out who it is gets the ownership of the ever-increasing heaps of useful things that the busy workers of the country pile up each year.

Serious books do not mean sleep-producing books. They will be found to be as interesting as a good, stiff game of checkers (which, by the way, calls for no mean intellect) and a whole lot more beneficial. Buy bound books. Too often it is the fate of thoroughly sound reading to become shaving papers, and only the most hardened and impenitent will tear up a bound book for that. Buy bound books. The money spent for an evening at the theater is all gone and nothing to show for it when the final curtain falls, whereas the same amount of money will buy an equal amount of pleasure, not only for you to dip into many times again, but for others. And in buying books, always pick those that will stand being re-read. You ought not to clutter up your library with books that cannot be re-read at least four times. You get your money's worth that way.

## Back Talk to Lewis

Letters From Readers

EDITOR OF FARM AND FIRESIDE:—

I have read Mr. Lewis' articles on "Politics," and I thought surely they were going to be all kick and no cure. In his little book, "Men and Mules," Professor Ries says, "A man can kick and be a mule, and a man can kick and be a fool unless he kicks to a purpose." Mr. Lewis kicks and kicks to a purpose as to Speaker Cannon, who seems to be the whole show in Congress. Roosevelt and Taft are mere puppets. I should like to hear Mr. Lewis explain how Mr. Cannon got his pull and where from.

Mr. Lewis has certainly stated the truth regarding prosperity. The few are prosperous—that is, the capitalist class. The workers may be prosperous in a measure by thrift and industry. They are nevertheless only getting a small portion of their earnings. The farmer, mechanic and laborer are all victims of the profit system, and we are exploited by the worst gang of stock gamblers and financial pirates that history has ever recorded.

Mr. Lewis has placed the blame for the panic on the railroads, banks and trusts, where it rightly belongs. By the way, that panic is still with us and will, I believe, continue until the people apply the remedy. The fault lies with the people. They have neglected to use a God-given privilege, won for us by the blood of the fathers and noble women who declared their independence and claimed their sovereign and God-given right, the privilege of casting an intelligent ballot. The cure Mr. Lewis points out will be found a cure for the present evils if applied. Only the voters themselves can free the people of this nation. . . . Aside from this political question, FARM AND FIRESIDE is second to none at any price as a clean, reliable, up-to-date paper for the home and farm, and any number is worth the subscription price.

Utah.

W. H. PRICE.

EDITOR OF FARM AND FIRESIDE:—

I wish you would leave "Politics" out and give something else. We get so much politics in other papers that it is restful to pick up a paper without them. Please let Mr. Lewis air his views somewhere else, as I think some other people know as much as he does, anyhow.

Pennsylvania.

CHARLES HENDERSON.

EDITOR OF FARM AND FIRESIDE:—

I want to say that I have been very much pleased with the articles on "Politics" by Alfred Henry Lewis that have been running in FARM AND FIRESIDE.

It is a pleasure and satisfaction to know that there are some men of sense and ability who can see things as they are, and express their opinions regardless of political party or creed. Of course Mr. Lewis doesn't expect to suit every man—that is impossible—but he states facts as they are.

Man is a selfish being. He wants the best of the bargain, regardless of the other fellow, and that is the case in regard to the tariff; but for my part, I can't see how the farmer is benefited in any way by a protective tariff. No farm produce to speak of comes to this country in competition with ours. Our surplus goes abroad to find a market.

Wisconsin.

WILLIAM MCCARTHY.

EDITOR OF FARM AND FIRESIDE:—

I noticed in your November 10th issue some criticism regarding the policy of having a political department in a farm paper. I wish to state that I believe that it is one of the most important departments in a farm paper, provided it furnishes the facts uncolored and in a strictly non-partizan manner.

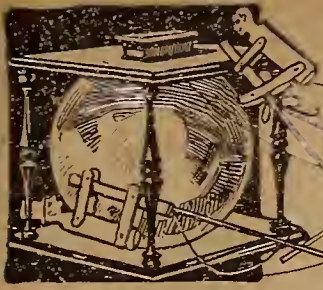
I believe Mr. Lewis is doing good work, although I don't always reach the same conclusions, and I would consider it a very great loss if he should be choked off on account of any criticism.

I consider FARM AND FIRESIDE one of the best papers printed for the money, and the political department one of its most important departments.

Wisconsin.

W. J. MARTIN.





# Politics

By Alfred Henry Lewis



SENATOR TILLMAN came into recent collision with the President of these United States, with the result that if he didn't gain a victory, he gained advertisement. Also, whatever fault may be found with Mr. Tillman in the land at large, his popularity was never more deep rooted in the Palmetto-rattlesnake state he represents. There, too, he is regarded as a modern Cicero, matchless in eloquence. By his code oratory demands that you call somebody a liar and quote Shakespeare, and the speeches of Mr. Tillman abound in these particulars. Mr. Tillman's present engagement as senator will last until March 4, 1913. With four more Senate years before him, plus the moral certainty that—bar death—he will succeed himself, Mr. Tillman should be nationally worth reading about. The more, since you are not at all likely to lose sight of him. Mr. Tillman's is no light to be hid, whatever the accumulation of bushels.

There are two tribes of politics dividing South Carolina. One is the aristocrat—the cavalier; the other is the commoner—the Roundhead. Mr. Tillman is chief of the latter, and to his limit a kind of Carolina Cromwell.

This clan of commoners to which Mr. Tillman belongs is of the uplands. They are the hill people. They are honest, ignorant, full of dark prejudice. It is cardinal with them to hate, distrust, and if possible lay waste gentlemen of more wealth than themselves. This last not in the sense of pillage, but destruction. These highlanders of politics don't pant for riches for themselves so much as poverty for others. They are called in the vernacular of Palmetto politics, "Wool Hats."

To those of the Tillman school, the first, last, only requisite for leadership is "Be sure you are followed." As the Wool Hats follow Mr. Tillman, he is in this description a leader. Also, he was a Confederate soldier, coming, however, somewhat late to the war. He is native to his present heath, and was born in 1847. He became a lawyer, and then ceased to practise law. After which he appeared as a farmer of the sort whose leading crop is politics.

\* \* \*

MR TILLMAN SOWED POLITICS to reap preferment for himself. His burst into general notice was achieved through the potato. He antedated Mr. Pingree of Michigan as a potato statesman. He wanted certain things to occur in the destiny of the potato, and he went to a farmers' convention and urged his views. So earnest was he in his advocacy of potatoes that other delegates took affront. Waxing wroth, they assailed Mr. Tillman personally after the convention had adjourned.

Being a man of his hands and feet, Mr. Tillman distinguished himself in these joyous bickerings, and thrashed several of the assembled yeomanry until they indorsed his position. These fistic victories, rather than his proposals of potato kind, gave him fame and opportunity.

Organizing his henchmen of the hills, Mr. Tillman led them against the patricians of the lowland coast regions. He ran first for the office of governor. He was elected in 1890, and again in 1892. His great fight, however, was with General Butler for the seat he now holds. After the fashion of the South, Mr. Tillman and Mr. Butler met in "joint debates." These debates were made up of nine tenths villification, one tenth debate. They were cantankerous rather than controversial, and proved the self-restraint of the gentlemen engaged. Certainly, both General Butler and Mr. Tillman are valorous, but they have their valor under control. Mr. Tillman the Roundhead won over his foe, the blue-blooded Mr. Butler. The Roundhead somehow always wins.

During his canvass Mr. Tillman, when not assailing Mr. Butler, was leveling diatribe at Mr. Cleveland. This last was his specialty, and he repeatedly promised his followers—listening with a sort of stuck-pig gape—that "when he got to Washington he would stick a pitchfork into that obese President."

There is much of the fake in Mr. Tillman, and his genius is cunning, not thoughtful. He is crafty to the extent that he addresses himself to the eye rather than to the understanding. Here is an instance of his fakish grandstandism: When he became governor and moved into the gubernatorial mansion at the capital, he found a broad green lawn in front. It was a lawn of beauty and verdant happiness—fresh and good with grass and flowers. Mr. Tillman, posing as utilitarian, condemning blade and blossom as the merest badges of an oppressive plutocracy, plowed up the lawn and planted it to corn. Evenings he would sit on the

If you don't agree with Mr. Lewis, "talk back" to him, confining your reply to two hundred words. We shall hope to publish some of these replies from time to time.—THE EDITOR.

veranda behind the corn, and plot politics of the ruthless school. The Wool Hat peasantry passing the place pointed to the corn with satisfaction. Every tassel was a feather in Mr. Tillman's wool hat. The patricians cursed him and his corn field as they might a mountebank and his trick.

\* \* \*

FROM LICKING COUNTY, famous as the birthplace of the late Col. Ike Hill, Mr. Agnew writes me asking whether I favor the "Recall" as a measure of reformation. Emphatically, I do. The Recall but offers to do in public business what everybody does in private business. You employ a man to do a certain work. Because of drunkenness, or dishonesty, or some other disabling reason, he proves himself incompetent. What is your remedy? You dismiss him. That is to say, as the term is understood and defined in politics, you "recall" him.

If this right of recall, this power of dismissal, be a good and necessary element in your private business, why should it not find hearty introduction into your public business? You elect a man to office—your office, not his office. He betrays you—betrays you either because he is weak, or is owned by rich influences, or is personally and aggressively dishonest, or is idle, or is muddle witted, or is drunk. The public service—your service—suffers. Instead of getting good government, to the limit of that betraying official's inefficiency you get bad government.

But he is mayor for four years, or governor for two, or senator for six. Is he, with his drunkenness, or dishonesty, or what else in his moral or mental make-up is working to the general injury, to remain his full term? Having betrayed his trust for one year, must you permit him to continue his betrayals for four or two or six? In your private affairs there would come but one reply. The man defaulting in his duty, for any reason, would be discharged—recalled. And the same argument which recalls him from a private trust should recall him from a public trust.

\* \* \*

THE RECALL ISN'T WHOLLY A THEORY. It is working practically as a principle of government in the large towns of the Pacific coast. No community adopting it has ever discarded it. Communities without it, observing its benefits, are taking it up. The Recall was but the other day incorporated into the charter of the California town of Berkeley, by a commission of which a chief figure was President Wheeler of the University of California. No, the Recall in scores of well-working instances has passed the stage of theory and become a fact.

How is the Recall set in operation? Two fifths of the registered voters, or what other respectable fraction of the electorate may be fixed upon, sign and file a petition with the proper office, charging an elected official with whatsoever in the way of misconduct, or moral or mental defect, renders him unfit for place. Thereupon a new election for that office must be held within sixty days, and the proper officers order and arrange for such special election.

That no injustice shall be done, the officer charged with ill doing is, with the others newly named for the place, a candidate, and given every public opportunity for defense. The people are his judges; they may remove and disgrace him, or they may defeat the Recall in his favor and retain him in his place.

Those publics which possess the right of Recall, and may unmake an officer as readily as they made him, are seldom called upon to exercise that right. Officers hew honestly and closely to the line of duty when working within the shadow of this power of dismissal. If I owned a township, a county, a village, a city, a state, a nation, I'd no more be without the Recall than without a roof to my house.

\* \* \*

ONE BEEKMAN WINTHROP is slated for a place under Mr. Knox. He will be Assistant Secretary of State to that Keystone publicist. This is all to happen when Mr. Taft becomes chief. I should call the Winthrop selection a poor one, were there any real work or real responsibility which belongs with the position. As it is, Mr. Winthrop—whose claims to the place are made up of a ten-story pedigree plus a one-story record—should answer passing well.

There is indubitable proof that Mr. Winthrop is not to be listed with the congenitally great. Before he heard of this meditated uplift in his destinies he was genial, frank, agreeable, disposed to be modest. Already the heaven of conferred greatness is working within him. He owns an air, comports himself with what height and sweep he thinks should be on exhibition as pertaining to a sucking Palmerston. It stands clear that he has grown to very much indorse himself. This mutation in Mr. Winthrop is worth mention only that it may serve as a text. As was stated, it offers one conclusive proof that Mr. Winthrop is not "great."

Greatness is a thing *per se*. The great man never changes; by that sign you may know him. The heavens may fade above, the earth may slip beneath his feet, all about may disappear, yet through the whole gamut of environment the natural great man is ever the same. Whether he meet defeat or inherit victory, the great man remains unshaken.

Two excellent samples of men born great have existed among Americans. Grant in 1860 was obscure, unknown, unhopd and unhoping. Five years later, as the greatest soldier of the greatest nation that ever had a name, he was riding about with one million five hundred thousand men at his horse's tail. Later, as President, he was the most fawned on man of any age. Sycophants flattered, parasites hung cringingly about. He was President; he was President again. His later progress from west to east belted the earth with fête and feast and honor done by royalty in glorification of the great American. He was waited on by kings; Europe and Asia opened every gate to his coming.

And with it all, through it all, Grant was as changeless as the hills. With all his sudden honors thick upon him, he was the same wise, silent, friendly Grant who in 1860 hauled obscure wood, and in 1865 was at the head of the most tremendous army that ever fought around a standard.

Grant was great.

Aaron Burr was in his day a tower. There came an hour when he even shook the nation to its footing stones. Politically he was chief of a mighty party. He sat in the high seat of control as president of the Senate. He was feared, bowed to, obeyed.

There dawned a morning when Burr came down from his place as Vice-President to follow up a feud. Hamilton was the foe of his heart. Burr laid down a possible White House to face Hamilton. Step by step, letter by letter, through a correspondence which lasted weeks, he backed Hamilton across the river to Weehawken and shot him to death.

Then came the change in the surroundings of Burr. He had slain a favorite. He was shunned, hated, his name was spat upon. Friends fled and money failed. Yet from the flood to the very ebb of fortune there came no change to Aaron Burr.

Burr was great.

Also, I fear me that Mr. Winthrop, whether in the saddle with the sword and the success of Grant, or in the high places of government and party with the plots and the failures of Burr, would never remind one of either.

\* \* \*

OVER IN WASHINGTON I ran into the Hon. "Joe" Blackburn, a little older, a little grayer, but no less humorous and happy than he was ten years ago. Mr. Blackburn has charge for the government—somewhat after the manner of a territorial governor—of the Panama Canal zone.

Washington is already rife with would-be office holders awaiting the presidential coming of Mr. Taft. You may know them by their anxious eye, their eager hungry look. Mr. Blackburn, remarking upon them, was moved to tell a story. It was laid in the days when he shone as the "Senator from Kentucky."

One of Mr. Blackburn's constituents had come hunting office. Mr. Blackburn's constituent was, as Artemus Ward would say were he here to say it, "of the colored persuasion." It was old Uncle Mose whom Mr. Blackburn had known all his blue-grass days. Also, Uncle Mose had the right office-holding spirit.

"Well," said Mr. Blackburn reassuringly, at the same time bestowing a dollar, "well, Uncle Mose, at any rate if I don't land you in an office I'll find you work in a private family."

"Hol' on, thar!" exclaimed Uncle Mose, "hol' on thar, Marse Joe! Doan't you go findin' me no work. I doan't want no work, I want an office. Of co'se, if you cain't get me no office, I'll take a pension. But, Marse Joe, doan't go projectin' 'round to find of Mose no work."





# The Soul of Honour

## By Lady Troubridge



### CHAPTER XI.—CONTINUED

"Now, Miss Read," he said, "you have told me your story, and I think I ought to offer you some explanation of the rudeness which has made you dislike me so intensely."

"Oh, pray—pray," said Honour, "do not allude to it again. I was ridiculous to mind. Of course, you have a perfect right to arrange your life as you may choose, and I hope you will try to forget what I said, for indeed it makes me ashamed to think of it."

Vannister, however, did not appear willing to drop the conversation, neither did he, as she expected that such a re-cluse would do, suggest her returning to her own rooms. On the contrary, he looked toward the door which led on to the garden terrace.

"It is hot and stuffy in here," he said; "don't you think so, Miss Read? Shall we take a turn through the rose garden and see how the roses are getting on, and then we might walk toward the park."

Honour's eyes lighted up at the prospect. She had been days without companionship, and in spite of her fear a little pleasurable excitement thrilled her at the prospect of a walk about this wonderful place under such auspices. Then the light died out of her eyes, for she dimly felt that these pleasant, harmless enjoyments were not for her.

He saw the hesitation in her eyes. "There is no harm in it, Miss Read," he said. "I am old enough to chaperone anybody." Seeing that she still hesitated, he added, "Do come! Now I have found some one to talk to, I realize that I, too, have been fearfully lonely."

At this Honour's excuses began to melt away, but she did manage to get out one, and that a rather foolish one.

"I have no hat," she said. "That doesn't matter in the least." Evidently in little things as well as big ones he was fond of his own way. "It is very bad for your hair to wear a hat at all. Besides, we are going into the shade. Come!"

Moving somewhat languidly, he opened the door, stood aside, and Honour stepped into the sunshine terribly conscious of the many great windows, which seemed to stare at her like large bold eyes full of upbraiding, as she passed down the steps terminating in carved bronze railings. Though it was hot, the air was delicious, and a faint smell of rain-washed mold and of new-mown grass came to her as she moved—that delicious scent which is a kind of mingling of trees, ferns and moist earth, and which came to them from some distance, for they were still in the more formal terrace and the trees were a long way off. This outer courtyard, for it was like one, although not enclosed, was paved with differently colored stones, and in the center was a great marble basin on which water lilies floated lazily.

"How lovely!" breathed Honour, her heart swelling at the radiant beauty all around her. Following her conductor down a short flight of steps, she came to a mass of color which almost took her breath away.

Roses—roses everywhere—a cataract of them falling from the covered way down which they walked. Roses red, pink, crimson and white, veiling the sundial and mounting the stone balustrade which enclosed this second garden. He saw wonder and joy dawn in her eyes.

"Pick some," he said.

Timidly she put up her hand and pulled at some crimson rambler which was dropping almost onto her hair, and to her fright a great spray came away in her hand, crowning her for an instant, and making her look like some goddess of the flowers, although she had no idea of this effect, and wondered at the sudden light which sprang into his eyes, until he spoke.

"Do not pull it away," he said; "let it lie there; it makes you look like some hamadryad of the woods, some nymph who has strayed by accident into a dull English country house."

But Honour had already torn the blossoms from her hair with an angry jerk, and she looked up at him with mingled shame and anger, one lightning glance instantly veiled.

"I do not like personal remarks," she said, with her dark eyes looking steadily at the vision of green beyond the rose-covered arch where they stood.

### Synopsis of Previous Chapters

Marcus Quinten, impecunious and unworthy, but heir to the title and wealth of his cousin, and Jack Taunton, wealthy and honorable, fall in love with Lady Hyacinth Windermere. Her parents favor the former because of his prospects. They know nothing of the latter's immense wealth, and Quinten concealed the fact. The story opens at Ascot on Cup Day. A woman at the gate of the paddock accosts Quinten as her husband. He repulses her, saying the marriage was false, and leaves her. She faints, and is befriended by Jack Taunton. Taunton learns Honour Read's story, and how she was deserted on the wedding day, and he urges Quinten to marry her. He refuses point blank. Taunton is refused admittance to Hyacinth's home, but meets her at the home of her cousin. She loves him, but says she must follow her parents' wishes. Taunton, failing to persuade Honour Read to expose Quinten to Lady Hyacinth, secures a position for her with Quinten's cousin, who is a misogynist, and requires a secretary who will not intrude on him personally, and therefore sends all his instructions by his valet. Honour feels that this cannot continue, and writes a note to Lord Vannister requesting him to give her a short interview, so that she may discuss the work assigned to her. The following morning Honour receives a reply from Lord Vannister and goes into the garden to read it. She is angry and indignant at the note, and in her rage sobs out, "I hate him! I hate him!" At that moment she hears a low laugh at her side, and raising her head with an angry jerk, faces the intruder, and is startled to learn that the stranger is Lord Vannister, her employer. She then tells him the sad story of her life. Lord Vannister's sympathy is immediately aroused and he asks Honour if she will still remain as his secretary.

Vannister looked curiously at her for a moment, and then he bent his head. "Forgive me," he said, "I will not offend again, but I have what is called an artistic eye, sometimes a blessing and sometimes a curse to its possessor. Just now I have been feeling very grateful for it." They walked on in silence, and then Lord Vannister, who she had begun to find out never said the ordinary things, but whose conversation always contained an element of the unexpected, looked her straight in the eyes with a clear level glance.

"I shouldn't say you were a popular girl," he said. "Are you?"

"Not in the least," replied Honour, emphatically.

"You say that as if you were proud of it."

"So I am."

"Why, it makes me feel rather ashamed, and I am unpopular also."

"I suppose you mean it is because I say downright things; well, I can't help that. I had rather be true than popular."

"It does not follow," he said, quietly looking across the flower-bedecked lawn. "For instance, was it quite true to say that you do not like personal remarks? Come, answer me that."

Her face went crimson in a moment. She raised her hand as though to push back her heavy hair, but in reality he knew it was to hide the blush on her cheeks. Then she dropped it again.

"No, it was not true," she said. "I did like it, but I hated myself for liking it."

"Ah," he said, "that was more honest. Miss Read, don't you adore honesty even in trifles? I do; but now look here, we are going to put a little matter straight and I am going to give you a warning. Do not judge all men by the one you have known; it is the fault I fell into about women, and I can assure you that it has proved a curse to me. You have been frank with me, and I want to be frank with you. I liked the way you told me your story; I liked your anger against myself, and I liked your repentance of that anger. I am your employer, that is true, but I am also a gentleman. Perhaps you have met some who were not, therefore your prudence is admirable, but don't you think if you believe me, and think that I am what I claim to be, that we might be friends?"

"I don't think I quite understand," she said. "I have never doubted that you are a gentleman, if I have seemed to have doubted that I have done wrong indeed." But in spite of the humble words, he noticed that she bore herself as though she were of royal blood.

"Then you will accept the friendship which I offer you, in return for your confidence?" he said.

"Of course, of course," she said, hurriedly. Confusion was mastering her again. Vannister bit his lip. He felt

that he had made a mistake in putting his offer of friendship into plain bold words, for it had seemed to freeze her up, and on reflection he knew why. Knew that it is because friendship is a tender, delicate, mysterious thing, and flourishes best when least noticed or commented upon. Suddenly Vannister determined that in spite of this bad beginning, grow it should. This human rose of a girl standing among the other roses in his garden might be set about with many thorns. He thought she was—stiff thorns of girlish pride and reticence which guarded the beautiful, vivid heart of the flower-like sentinels. Yet he knew that only once before had he seen such an exquisite blossom, and the sight of it had cost him twenty years of misery.

They had left the garden now, and crossing the wide expanse of park, entered the wood at the end of a rustic bridge thrown across a clear running stream, a delightful little miniature river where tall reeds grew and shivered in the tiny breeze that had sprung up apparently from nowhere.

Crossing this bridge, they passed into the shadow of great trees, growing so close together that Honour felt as though she were stepping into a cool dark cave where the air was cold and still. Over her head she could see only little patches of blue sunlight.

In the mossy path where they were walking lay a huge log looking so inviting that it almost seemed to beg them to be seated there a while and rest, and indicating it with a gesture he flung himself down, and Honour followed suit. Then he leaned forward and looked at her more closely.

"Why am I unreasonable, Miss Read? Come, let us hear all about it! Formulate the accusation; I want to hear it."

"Well, if I must speak," she began slowly and steadily, although she chose her words with care, "all I can say is that I cannot change as suddenly as you do. I feel grateful, and I want to show it; but it is all so strange to me. First, you would not see me, and you nearly sent me away because I wanted to get my instructions straight from you; and now you seem to want to make friends with me. I am glad, but it is all so sudden and—" she broke off, but her eyes said the rest and it was her eyes he answered.

"My sister comes to-day," he said. "I think she will have already arrived when we go back; so you won't feel strange and unprotected any longer. I ought to have told you that before, ought I not? But you see, it is so long since I have had any one to consider that I have forgotten a little."

Honour felt happier. If his sister proved as kind as he, then friendship between all three of them might be possible. Her feeling showed in the brightness of the look she gave him.

"Lord Vannister," she said, slowly, "forgive me if I am taking a liberty, but—you speak so kindly, I cannot help saying what is in my mind. Why do you shut yourself up so and dread meeting people? It must be only a fancy, or else you could not act as kindly as you are doing now."

"It is a fancy that has lasted several years," he said, moodily, "a state of mind that seems bad enough to me; and, after all, it is not so uncommon as you think. Half the people you meet over thirty-five would be glad, if they told the absolute truth, to shut themselves away with their aching, wretched hearts. But they can't; perhaps they are too poor, or they must work for others and put a brave face on things; but in their hearts they are tired—oh, so tired of it all! Now I am tired, too, and not poor. I can make a peaceful backwater for myself in the rushing river of life. I can surround myself with beautiful silent things, which can never make tactless, irritating remarks as people do, never wound and deceive. Now do you begin to understand? After I had sent for you I regretted it," said Vannister, "and if it hadn't been that—to tell you the truth—I thought it would be a loss to you, I would have written to tell Taunton to ask you not to come."

Honour gave a little gasping sigh. Suddenly she realized that this quiet, stately, beautiful life had grown even in a few hours necessary to her. She could not think of herself as outside it all again, and she felt a sudden gratitude



"At the outskirts of the wood she resisted the attempt to draw her onward into the uncovered space, where the rain was pelting down, and great, irregular forked flashes of lightning were illuminating the darkness."



for that thought of his which had realized her petty loss and respected it at his own inconvenience. What he had said of himself was true. He was indeed a gentleman, and in her heart she thanked him for his pity.

Vannister seemed to like her silence, and he went on speaking. "By the time you came," he said, "I had worked myself into a pretty considerable rage about it. The idea that you had come to stay, to upset the peaceful routine of my solitary days here, irritated me and seemed to do away with the peace which I had managed to gather around me in this cheerless home of mine. So I determined to do the only thing left to me and to make your presence here as little of an annoyance to me as was possible. You know how I tried to bring this about. As to the reasons why I dreaded the coming of a woman, I hardly dare to tell you them yet, but I have a feeling that in time I shall ask you to listen to my confidences, ask you perhaps to pity me a little, but not yet, not yet. It is enough to say now that I am rather a lonely and miserable person, and that life has been to me so far, less of a comedy than a tragedy—through my own fault, no doubt, but that does not take away from the bitterness of it. I am broken down in health, I am no longer young, and all I have to look forward to is that endless peace which I shall find down there in the churchyard. Even that is poisoned to me by the thought that I must leave this home of mine, which, after all, I love, to a worthless young reprobate who longs every day of his life that I may be quickly gathered to my forefathers. There, now, you know a little about it, and I wonder if you have any pity for me, or not."

"I pity every one who is unhappy," she said, "but I have seen such dreadful misery in London, things which hurt one even to think of, and which seem to squeeze the life out of one when they are actually happy, that your life here seems like heaven to me."

"After all," he said, "that was life, and this is more like death. A gradual death of the heart, and of hope. You judge from the outside, Miss Read, as healthy-minded young people are apt to do, but let me tell you that there are griefs of the soul so bitter and so desperate that actual starvation is nothing to them. For instance, I suppose even in your most tragic moments you never thought of such an awful thing as of taking away the life which God has given you. Well, I have, and I have thought of it not once, but over and over again."

Honour was startled, a look of vague terror dawned on her face, she stared at him in amazement, and she could not doubt the testimony of her eyes, which told her that every word he had spoken was nothing but the truth.

"No, I have never felt like that," she said, "and I hope that you never will again."

Again that curious look flitted across his face, with something in it that she could not understand. "I think now," he said, "that I never shall."

The character of the day had changed. A storm was coming. Already the rain was beginning to fall in large sullen drops, and Honour became frightened. "Oh, I am frightened," she said, "there is going to be a dreadful storm."

Her companion roused himself as from a reverie. "Don't you like storms? I do, but I would not have brought you if I had thought there was one coming, and yet I might have guessed it from the intense heat. Never mind, it will soon pass."

Honour tried to be reassured, but as a matter of fact it did nothing of the kind. The muttering of the thunder changed to loud peals, the lightning became more vivid and she sprang to her feet in terror. He arose also. "I think we had better leave the wood," he said, quietly. "Now, Miss Read, there is nothing whatever to be alarmed at."

His remark was unheeded. Honour trembled excessively. "Oh, don't let us go," she said, for it seemed to her that here in this woodland refuge they were safer than anywhere else, but Vannister thought otherwise. As a rule he despised feminine cowardice, and had she been one whit less beautiful he would have wished her back in her lodgings in London, but as it was, this strange contradictory creature, odd mixture though she was of pride, temper and womanish fears, interested him so much that the contempt he felt melted away and he felt for the poor young Londoner, and comprehended her fears of Nature in her blacker moods.

He took her hand and drew her along the now wet and slippery path to the outskirts of the wood, and he felt that the hand he held was cold and that her breathing was hurried. She suddenly seemed to him friendless, young and alone, and an unspoken resolve crossed his mind to be this pale girl's friend in the highest and the noblest sense of the word. It was a curious, almost an

unheard-of thought to come into his head considering their relative positions, but once having come it remained there.

At the outskirts of the wood she resisted the attempt to draw her onward into the uncovered space, where the rain was pelting down, and great, irregular forked flashes of lightning were illuminating the darkness, and she shrank and cowered, clinging to his arm.

Vannister took off his long, loose covert coat and wrapped it around her, and then as simply as a brother might have done he took her arm.

"Now be a good girl," he said, "and do as I tell you; trust me; I know best."

She clung closer to his arm, and looking into her eyes he saw that she would be reasonable, and then he drew her out and it seemed to her as if they were both caught away into the heart of the gathering storm. Curiously enough, all sense of fear now left her, although the clashes of thunder were louder than ever. They seemed like cannons, and the lightning leaped from the low clouds in the south higher, and higher, above her head. She shut her eyes, and yielded herself entirely to the guiding hand, and presently they were nearly home. Then at last, Vannister bent his head and spoke to her.

"I don't believe in omens," he said, "or else I should be sorry that at our first meeting the elements have been so strange and wild and menacing. As it is, I feel sure that you are going to bring peace and not storm into this house."

As he drew her into the hall, before the fire in the inner drawing room they saw a lady standing, and again Honour obeyed her employer's gesture, and followed him into the room, freeing herself, however, from the shielding cloak.

"Gertrude," he said, "let me introduce you to Miss Read. I have been making her acquaintance, and in doing so we were caught in the storm. She is cold and wet and frightened. Will you look after her? Miss Read, let me introduce my sister."

#### CHAPTER XII.

JACK TAUNTON was having his breakfast on the morning of the eleventh of August, the day preceding the one which would see his joyful start for Scotland. London had become an odious desert to him since Hyacinth had definitely withdrawn herself from him, leaving a deep wound in that honest heart of his. The worst of it was that her action had made her step off that high pedestal where she had been enthroned in his innermost thoughts. Making every allowance for the fact that her mother's influence was paramount with her, he felt that she had hardly been worthy of the love he had given her, but already he knew that even if he never saw her again he could not lose her out of his life. The very air seemed charged with an electric current to carry messages from his heart to hers. Yes, good or bad, weak or strong, she was the one woman in the world for him, and he knew it. Knew, too, that if the only way of winning her was to declare the fact of his great wealth to her grasping old mother, then she must go unwon, and yet sometimes this hardly seemed fair to the girl, and a remembrance came to him of that moment when in the sudden solitude of the staircase at the race course he had snatched a kiss. Nothing could ever be so wonderful again as that exquisite moment, and he knew in his heart that the touch of those soft, dewy lips had given him the right to win her love and to beat down all opposition. Anyhow, whatever happened, this would be the romance of his life, and he could have cherished it as such had it not been for the unbearable thought that that cur, Quinten, was holding her sweet life in his worthless hands, Quinten, with his treacherous secret, playing the rôle of the perfect lover. He ground his teeth to think of it, and as if in answer to his thoughts his servant came into the room and handed him a card on which he saw the name in his thoughts. "Ask Quinten to come in," he said.

The servant disappeared, and presently Martus strolled in, looking as well dressed and as carelessly debonaire as usual, but his eyes looked as cold as points of steel as they met Taunton's—cold and a trifle malignant. His manner, however, was perfectly friendly.

"Thank you for seeing me," he said. "I hope it shows that you have got over your foolish jealousy of my little love affair."

Taunton shrugged his shoulders. "Which love affair?" he said, scornfully.

"Why, for the sweet little lady who has done me the honor to accept me as a husband. After all, why should that separate us two friends? Now, I'm a man of sense, and I take these things quietly. You Colonials are so absurdly exaggerated. Why should a little, ingenué, a mere child of eighteen, come between two old friends?"

[CONTINUED ON PAGE 29]



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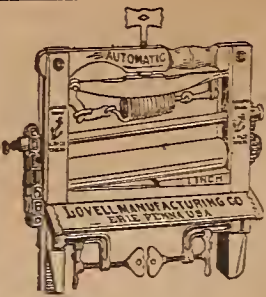
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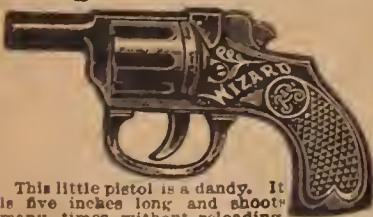
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Fashion says that the waist and the skirt must match in color, so if you can, be sure to carry out this idea. If you have a dark blue serge skirt made in walking length and tailored in style, have the shirt waist that you wear with it blue of the same shade. Let one be of gingham or linen rep, and then, if possible, it is a wise plan to have a better one of pongee or any soft silk. Blues are to be fashionable again this spring and autumn, and the tans and the natural-linen colors continue to be good style.

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No. 1068—Corset Cover With Peplum

Sizes 32, 34, 36 and 38 inch bust measures.

No. 1069—Dart-Fitted Closed Drawers

Sizes 22, 24, 26 and 28 inch waist measures.



No. 1139—Guimpe With or Without Peplum  
Sizes 32, 34, 36 and 38 inch bust measures.

No. 1274—Apron With Epaulettes

Pattern cut for 4, 6 and 8 year sizes. Quantity of material required for medium size, or 6 years, three and three fourths yards of twenty-two-inch material, with one and three eighths yards of insertion and one and three fourths yards of edging.



No. 1221—Short-Waisted Dress With Directoire Revers  
Sizes 32, 34, 36 and 38 inch bust measures.



No. 1133—Princess Underslip With Sleeves in Two Styles  
Sizes 34, 36, 38 and 40 inch bust measures.

## MADISON SQUARE PATTERNS

For every design illustrated on this page we will furnish a pattern for ten cents. The Madison Square Patterns are very simple to use. Full descriptions and directions come with the pattern, as to the number of yards of material required and how to cut, fit and put the garment together. The pattern envelope shows a picture of the garment. All of the pieces of the pattern are lettered, so that even if the collar in the pattern should look like the cuff, there is no possible way of mistaking one for the other, for each bears its own letter identifying it.

Send orders to the Pattern Department, FARM AND FIRESIDE, 11 East 24th Street, New York City. When ordering, be sure to comply with the following directions: For ladies' waists, give bust measure in inches; for skirt, give waist measure in inches; for misses and children, give age. Be sure to mention the number of the pattern you desire. Satisfaction guaranteed.

A distinctive feature of the Madison Square Patterns is the originality of their designs. They are always up to the moment in style and yet they are never extreme.



# PRACTICAL PATTERNS



**No. 1285—Shirt Waist With Applied Yoke**  
Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four yards of twenty-four-inch material, or three yards of thirty-six-inch material, with one fourth of a yard of contrasting material for trimming.



**No. 1291—Shirt Waist With Shallow Pointed Yoke**  
Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four yards of twenty-seven-inch material, or three yards of thirty-six-inch material.



**No. 1254—Short Petticoat—Four Gored**  
Sizes 22, 24, 26, 28 and 30 inch waist measures.



**No. 1126—Shirt Waist With Tab Trimming**  
Sizes 34, 36, 38 and 40 inch bust measures.

**No. 892—Plaited Skirt With or Without Trimming Band**  
Sizes 22, 24, 26 and 28 inch waist measures.



**No. 1096—Waist With Mousquetaire Sleeves**  
Sizes 34, 36, 38 and 40 inch bust measures.

**No. 1097—Three-Piece Skirt With Fan Back**  
Sizes 24, 26, 28 and 30 inch waist measures.



**No. 1276—Guimpe Dress Buttoned at Sides**  
Pattern cut for 4, 6, 8 and 10 year sizes. Quantity of material required for medium size, or 8 years, three and one fourth yards of twenty-two-inch material, or two and one fourth yards of thirty-six-inch material, with one and one half yards of thirty-six-inch material for guimpe.

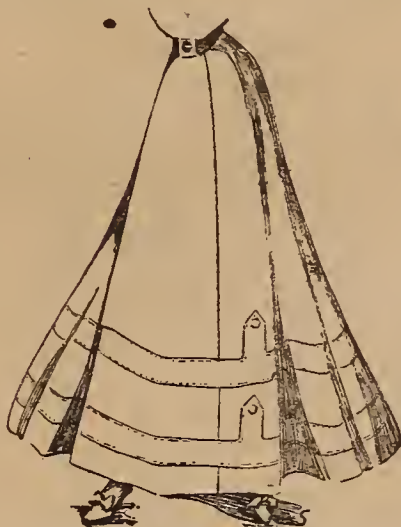


**No. 1253—Sacque Nightgown**  
Sizes 32, 36 and 40 inch bust measures.

WHEN baby grows up, so that he has accomplished the feat of walking, there are any number of new designs for dainty little clothes that mother can make for him. Taking it for granted that he is the best and most important baby in the whole wide world, one novel idea is to stamp his clothes as his own by a hand-embroidered initial, used, however, in a decorative way rather than merely as a marker. The initial may be the embroidered touch on the yoke, or it may trim the sleeve.



**No. 1300—Dress With Initial Yoke**  
Cut for 6 months, 1 and 2 year sizes.



**No. 926—Seven-Gored Band-Trimmed Skirt**  
Sizes 24, 26, 28 and 30 inch waist measures.



**No. 705—Dressing Sacque With Fitted Back**  
Sizes 34, 36, 38 and 40 inch bust measures.

## MADISON SQUARE STYLE BOOK

Are you accustomed to see the style book of the Madison Square Patterns? If you are, of course you realize its value to you in making your own clothes. The new style book, better and bigger and more attractive in every way, will be out March 20th. Send your order for it now. Enclose four cents in stamps, and address your letter to the Pattern Department, FARM AND FIRESIDE, 11 East 24th Street, New York City.

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# The Household



## Good to Remember

NEVER slam the oven door when baking cake or bread. It is apt to make it heavy.

PARAFFINE can be used a second time to cover jelly and jam if it is washed clean and boiled before being used again.

TARNISHED silverware can be brightened by allowing it to remain in butter-milk for two hours, then washing in hot suds.

IF your baked beans burn, put them in a panful of cold water and leave them for a time. The burned flavor will entirely disappear.

TO HASTEN the growth of ferns or palms, pour one tablespoonful of castor oil around the roots. It will also add greatly to their appearance.

DO NOT throw your old brooms away. They are excellent to use when scrubbing the kitchen floor. Use hot suds and then mop up with clear water.

TO PREVENT your wash boiler from rusting, after thoroughly drying same, rub the bottom inside with a cake of laundry soap, and leave until it is to be used again.

TO MAKE meat tender, rub thoroughly with ordinary baking soda, and let stand twenty-four hours. Wash carefully before cooking. This is particularly effective for steaks and fowls.

## Tested Recipes

### New England Brown Pudding

TAKE crusts and remnants of stale bread, and bake them to a golden brown; while still hot, pound them fine, like a flour or powder. To four ounces of this brown powder add two ounces of brown sugar, two ounces of raisins and currants, one cupful of milk, one cupful of boiling-hot water and one half teaspoonful of spices. Bake about twenty-five minutes in a baking dish rubbed well with butter or drippings.

### Cake Without Butter

ONE cupful of sugar to which add two eggs very stiffly beaten, the yolks and whites separately, one teaspoonful of vanilla, one cupful of sifted flour, one half teaspoonful of soda and one teaspoonful of cream of tartar. Beat the mixture briskly and then pour in one half cupful of hot milk, and beat again. Bake in a regular cake oven.

### Turkish Delight

SOAK one ounce of gelatine for thirty minutes in one cupful of cold water, then pour over it two cupfuls of boiling water. Stir it well in an enameled sauce pan, and let it boil gently for fifteen minutes. Add a pinch of tartaric acid (just enough to make it slightly piquant), color it pink with a little rose coloring paste, and flavor it with extract of lemon. Pour it out into a shallow dish that has been standing filled with cold water, and set it in a cold place until firm. The next day, with a sharp knife cut it into small squares, and coat each square thickly with icing sugar. Pounded almonds or walnuts mixed with the sugar make a delightful variation, or a little fresh grated cocoanut.

### Dinah's Taffy

MELT five tablespoonfuls of butter in an enameled sauce pan over a slow fire, then stir in one pound of sugar and the juice of one lemon or one tablespoonful of good vinegar. Let it boil about ten minutes over a slow fire, stirring constantly, then test a little by dropping it into a cupful of cold water. If it hardens quickly it is done, and pour at once into shallow buttered dishes or tins. Before it is entirely hard mark it off into squares with a sharp knife.

### Potato Puree

BOIL five or six potatoes with a little celery and onion, pass through the colander, and add at least one fourth of a pound of butter and enough hot milk to make it of the consistency of thick cream; pepper and salt to taste; chop a little parsley fine, and throw in; boil for one minute.

## Egg Economies

THE scarcity of eggs has been greatly felt this winter, and I must confess that I was very much alarmed when I heard that eggs were selling at sixty cents a dozen. I have received dozens of woeful letters from my friends, and in every case the first questions that meet my eye are: How can we live without eggs? Will they never be cheaper? Can you tell me how to make cake and puddings without eggs, or with very few? And so you see, that since I am considered an experienced cook and one of ex-



Muffins Made Without Eggs

cellent judgment, I felt duty bound to help my friends out of their difficulty, and, incidentally, myself. Here are some of the recipes which I concocted, and which I trust our women readers of FARM AND FIRESIDE will do me the honor to try.

I began by making my muffins with one egg, adding one half teaspoonful more of baking powder, and they were a perfect success. An old gem rule which my mother used came to my mind, and I am sure no one could want anything

ample for four persons. If I find I can use four eggs, and wish to make a heartier meal, I use another of mother's old rules: One pint of milk, four tablespoonfuls of flour, four eggs, one half teaspoonful of baking powder and one half teaspoonful of salt. Bake twenty-five minutes. Mix flour, baking powder and salt thoroughly, then add the milk slowly, and beat well. Add the well-beaten eggs, and put in a pudding dish to bake. I find my "one-egg cake" appeals to my family's appetite, perhaps because I vary the flavoring and filling. For this I use one tablespoonful of butter, one cupful of sugar, two thirds of a cupful of milk, two cupfuls of flour, one egg, two teaspoonfuls of baking powder and one half teaspoonful of salt. Sometimes I make this in layers, using either chocolate, jelly or lemon filling. Another time I add a few currants and bake in a loaf and finish with an icing. Another time I add citron and a dash of cinnamon.

Cookies without eggs are not at all unpalatable. Take one cupful of sugar, cream it with one half cupful of butter, add one cupful of sour milk in which one teaspoonful of soda has been dissolved, add any spice for flavoring, and flour sufficient to roll. Cut, and bake in a quick oven.

There is always a welcome for good gingerbread, or molasses cake, as it is sometimes called. At grandmother's we used to get it made from the following rule: One cupful of shortening (lard or dripping and butter mixed), one cupful of molasses, one cupful of sour milk or hot water, one teaspoonful of soda, one half teaspoonful of salt, one teaspoonful of ginger and one of cinnamon if that combination is liked. Add flour to make a good pouring batter. To make it attractive I often add a chocolate icing.

Desserts without eggs or with few eggs are the really trying things to evolve, but if your dessert appeals to the eye and is appetizing to the taste, it may be very plain, in fact is often better if not too rich. A little patience and study will accomplish wonders. To your plain corn-starch blanc mange add one well-beaten egg; cool in small molds, and serve with sugar and cream or a fruit juice.

Then there is always the acceptable cottage pudding, and one egg will do very well with one half cupful of sugar, a piece of butter the size of an egg, one half cupful of milk, one heaping teaspoonful of baking powder, one cupful of flour and a pinch of salt. This served with cream or a sweet sauce or a fruit syrup will be sure to please.

A banana pudding with but one egg was made, and proved dainty and appetizing. I took a large coffee-cupful of milk, one fourth of a cupful of sugar and one teaspoonful of pulverized gelatine. When these were hot and the gelatine dissolved, I poured it over the well-beaten yolk of one egg, adding a flavoring of equal parts of lemon and vanilla. Then I sliced bananas into my sherbet cups, and poured the custard over them. The white of the egg was beaten to a stiff froth and piled on the top of the puddings, then they were placed in the refrigerator to thicken. When served at dinner no one would have imagined that an economy had been necessary.

Sometimes I have used oranges or baked apples in place of the bananas, and then again I have used the custard plain and added the pulp of baked apples, canned peaches or crushed bananas to the white of the egg.

For luncheon we found that a one-egg tea cake helped us very much. For this we took one half cupful of sugar, two tablespoonfuls of butter, two cupfuls of milk, three cupfuls of flour, two teaspoonfuls of baking powder, one half teaspoonful of salt and one egg. Bake in a quick oven.

For scrambled eggs, one of our stand-bys, I took four eggs, one cupful of milk, one half teaspoonful of salt, one large cupful of corn flakes and a piece of butter as large as an English walnut. I placed the butter in the frying pan after beating the eggs, added the milk and corn flakes, then cooked them quickly, stirring all the while.

EMMA RICHARDS.



A Delicious One-Egg Cake

better. For this take one pint of flour, one pint of milk, one egg and one half teaspoonful of salt. Beat the egg until very light, and add to the flour and milk after they are well mixed. Have your gem pans very hot, and bake in a quick oven twenty minutes.

Then this corn-muffin rule suggested itself to my mind, and it does not require an egg. Take one pint of sour milk, one pint of corn meal, one pint of flour, one half teaspoonful of soda and three tablespoonfuls of sugar. Dissolve the soda in the milk, add the sugar, then



One-Egg Banana Pudding

the flour and meal. At the last add two tablespoonfuls of melted butter. Bake twenty-five minutes in a hot oven. Eat with plenty of butter. These can be baked in muffin pans or in a sheet like Johnny cake.

An omelet for four persons needs at least four eggs, so I take three eggs to one and one half pints of milk and one half teaspoonful of salt, then put it in a good oven, and bake it. It gives us





## The Housewife's Club



Here is a chance for each of you to help one another. Possibly you have discovered some new and practical idea in keeping house, some labor-saving method, some delectable recipe, some new way of making home attractive, in general something to make the housework easier and life more enjoyable. Why not give the rest of our readers the benefit of your experience? We will pay twenty-five cents for any contribution available. This department will appear monthly. Contributions must be written in ink, on one side of the paper, and must contain not more than two hundred and fifty words. We would suggest that contributors retain copies of their manuscripts, as no contributions will be returned. Address THE HOUSEWIFE'S CLUB, care of Farm and Fireside, Springfield, Ohio.

### When Ironing

I HAVE found that if on ironing day I keep a damp sponge near at hand, for moistening the dry spots on thin articles, it is a great help. Mrs. G. A. N., Wisconsin.

### Home-Made Mop

I FIND the very best mop is made from strips of old undervests and drawers. I patch and mend and mend and patch until I can do it no more, and then when the underclothing is past all hope, I take it for mops. I cut the strips about one inch wide, sometimes one and one half inches if the stockinet is thin, and these I cramp into the mop frame in a mass. I arrange the strips in layers, each layer an inch or two shorter than the one beneath it. This makes a graduated mop which cleans nicely. Such a mop will last a long time. M. P. H.

### Buttermilk Biscuits

TAKE one pint of fresh buttermilk, and heat to the boiling point. Stir in one pint of flour and one heaping teaspoonful of sugar, and beat briskly for several minutes. Set in a warm place over night, and in the morning add two spoonfuls of lard and butter (melted), salt, one half teaspoonful of soda and enough flour to make a soft dough. Work for five or ten minutes, roll out, and cut into biscuits. Bake in a quick oven. These are much nicer than the ordinary buttermilk or baking-powder biscuits. E. M. F., New York.

### Some Dessert Recipes

**SUET PUDDING**—One and one half cupfuls of suet, one half cupful of molasses, one cupful of sour cream, one half cupful of sour milk, one cupful of currants, one teaspoonful of soda, flour to thicken. Steam two hours.

**FRUIT CAKE**—One pound of butter, one and one fourth pounds of brown sugar, two pounds of currants, one pound of raisins, one fourth of a pound of citron, candied orange and lemon peel, ten eggs, one and one fourth ounces of cinnamon, one and one eighth ounces of cloves, one fourth ounce of nutmeg and one and one fourth pounds of flour. Bake three hours.

**NEW YORK CAKE**—One cupful of butter, three cupfuls of sugar, one cupful of sour milk, six eggs (whites beaten separately), one teaspoonful of soda, two teaspoonfuls of lemon extract and four cupfuls of flour.

### Renewing Window Curtains

TAKE old curtains that have become soiled and faded, and remove them from the rollers, being careful not to tear them. Turn a hem as wide as the one on the other end, and stitch on the sewing machine, making the stitches as long as you can. Then tack the soiled end to the roller, using short flat-headed tacks. Run the curtain stick through the hem as it was on the other end, roll and hang up, and you will have a curtain that looks as good as new. Mrs. W. A. B., North Carolina.

### For Croupy Children

MOTHERS of croupy children will be glad to know that pine tar burned in the room where the little sufferer is will bring instant relief. It is also a fine thing for those suffering from asthma. The quickest way is to fill an old pail or tin dish with red-hot coals and drop the tar on them and then keep the pail or dish close enough to the sufferer for him to inhale the fumes of the smoke. It is also an excellent preventive of croup if burned at night before the little ones retire. M. P. H., New York.

### Cucumbers in Abundance

LAST year I had more cucumbers from half a dozen hills than I knew what to do with. This is how I managed: In the middle of each hill I sank an old gallon tin pail with a number of holes punched in the bottom. Around this I planted eight or ten seeds, which I afterward thinned to four. Every night I filled these pails with water, and my cucumbers were the wonder of the neighborhood. Mrs. W. S., Illinois.

### For Pie Bakers

AFTER trying various ways of baking the crusts for cream pies, or any others where it is desirable to put the filling into a baked crust, I have hit upon the following plan of baking them between two pie pans: Line with the paste a pie pan which has been well greased, then dusted with flour, and place on this one which has been greased and floured on the bottom, and bake. By this means you will have a smoothly baked under crust, without puffs or uneven surface. A cup partly filled with water may be set in the upper pan if the crust should incline to puff up at one side. This is not likely to occur unless too much baking powder has been used. Mrs. A. J., Illinois.

### Sack for Refuse

ONE of the greatest conveniences about my kitchen is a large burlap sack hung near the kitchen door in the shed. Into it are put all the empty tin cans, broken china and glass. When it is full, the ash man takes it down and empties it. It is not unsightly and never in the way. E. R. P., New Jersey.

### A Time Saver

A GREAT time saver in this house is a "menu suggester." It is made of several sheets of cardboard loosely tied together, each sheet being devoted to a certain class of food. No. 1 is devoted to soups and contains a list of the favorite soups in use in this family, each name being followed by the number of the volume and page where the recipe is to be found. My cook books are all plainly numbered, and therefore much time that is usually lost in hunting up the recipe is saved. It is the same way through the whole "suggester." When a new recipe is tried, if found not wanting, it is added to the list under its particular heading, and the recipe is either pasted or written in one of my books and the number and page appended to the name on the "suggester." This little affair saves me much time, worry and bother, and also adds variety to our meals. S. T. G., Kansas.

### Delicious Fried Potatoes

SLICE some potatoes very thin, place in cold water and let stand thirty minutes. Drain thoroughly, and dry with a napkin or towel. Butter well a frying pan, and arrange the potatoes in layers in the pan, seasoning each layer with salt, pepper, a pinch of dry mustard and some melted butter. Sprinkle the top with some dry bread crumbs and bake in a moderate oven until well browned. Pork fat may be substituted for butter with excellent results. M. H. P., Pennsylvania.

### Useful Hints

WHEN a garment has been scorched in ironing, I hang it outdoors, and the sun removes all marks. To remove tar from unwashable goods, cover the spot with a little butter, let it remain a while, and then wash off with warm water and soap. Clean your oilcloth with a little kerosene and it will look like new. Also use a few drops of kerosene in the water when washing varnished woodwork. It will keep the varnish bright and shining. Mrs. M. A. H., Ohio.

### Good Plum-Pudding Recipe

HERE is a recipe for plum pudding that is well worth trying. One half pound of butter, one half pound of suet (chopped very fine), one half pound of sugar, one and one fourth pounds of flour, one pound of seeded raisins rubbed in flour, one pound of currants also rubbed in flour, one eighth or one fourth of a pound of citron shredded fine, six eggs, with the whites and yolks beaten separately, one half pint of milk, one teaspoonful each of cloves, mace and nutmeg. Pour pudding into a cloth which has been dampened, and boil for three hours. Mrs. A. W., Illinois.

### Inquiry From a Subscriber

CAN any of the readers of FARM AND FIRESIDE give me a recipe for making cream pie of sweet cream and scalded milk? Mrs. E. D. W., Connecticut.

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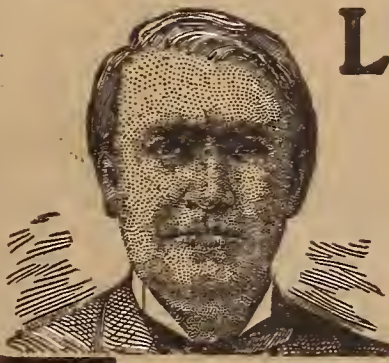


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Pony With  
Cart and  
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This is  
"Dandy,"  
the First  
Prize Pony



The Finest  
Ponies in  
America for  
Farm  
and  
Fireside's  
Boys and  
Girls

# Which Pony Do You Want?

Just think, if you can, how much fun and good, healthy exercise you can have with one of these fine Shetland ponies. Think of the many happy drives you can have behind "Dandy" or "Beauty" and of the glorious gallops down the road! Look at the ponies again—wouldn't you give almost anything to own either one of these Shetlands, with his fine new cart and harness? You can have one for your very own if you start now and hustle.

The two beautiful ponies pictured here are going to be given away in just a few weeks to two of our boys or girls who are willing to do FARM AND

FIRESIDE a favor. No one has a better chance than you, and if you are willing to hustle a little after school or in your other spare hours, you can win one of these handsome and valuable ponies just as well as any one else. "Dandy," the pony pictured above, with a beautiful new rubber-tired cart, and harness, will go to the first prize winner, while "Beauty," the pony just below, with cart and harness, is the second prize. Two more ponies, "Molly" and "Cupid," will also be given in this contest, making **four ponies in all**. Each of these ponies, with cart and harness, is worth several hundred dollars.

## From Former Pony Winners

I cannot begin to tell you how happy I am to own such a fine pony. He is a perfect beauty. I certainly have been well paid for the little time I spent in getting subscriptions.

LEONARD FOREMAN,  
Osceola Mills, Pa.

I have been offered \$200 cash for my pony alone. Hardly any one refused to subscribe to FARM AND FIRESIDE.

MARGUERITE LAWSON,  
Hopkinsville, Ky.

There is a judge of Shetland ponies here, and he says my pony "Duke" is the best he ever saw. It is easy to get subscriptions to FARM AND FIRESIDE—if you don't give up.

DOROTHY A. MILLER,  
R. R. 1, Franklin, Ohio.



"Beauty," Second Prize Pony, With His Cart and Harness

## How They Won Their Ponies

"Prince" is a beauty. I would not part with him for any price. I found it easy to get subscriptions to FARM AND FIRESIDE.

HOWARD G. LAIDLAW,  
Walton, N. Y.

I would not give up my pony "Teddy" unless he should die. "Teddy" is gentle and beautiful in every way. Every one likes FARM AND FIRESIDE for sending such a fine pony.

VIVA McNUTT,  
Vandergrift, Pa.

My beautiful pony "Bobby," that FARM AND FIRESIDE sent me last year, has just taken one of the prizes at our county horse show.

SEELEY JENNINGS,  
R. D. 11, Westport, Conn.

# The Greatest of All Prize Contests

In this contest we not only offer the four handsome ponies, but four superb pianos also (see below). And we guarantee a **Prize for Every Contestant** and a **Cash Commission for Every Subscription**. We shall devote more money per subscription to rewarding contestants than we have ever spent before. We guarantee every pony to be young, sound as a dollar in every respect, and gentle as a

kitten. They are the very finest ponies we could get. And in addition to all the ponies and pianos, in addition to the cash commissions and the valuable prize that every contestant will receive, we offer One Hundred of the most beautiful **Grand Prizes** ever given in a prize contest. In every way we are making this contest the greatest, most liberal and most satisfactory ever conducted.

## How to Win a Pony

All you have to do now is to cut out this coupon (or a postal card will do), write your name and address on it, and send it to me to-day. I will answer you immediately, and will send you full information about this very liberal Pony Contest. I will also send you a great many beautiful pictures of the ponies, and a lot of other things that will surely please. All of them are absolutely free and you are under no obligations whatever. I merely want you to send me your name so that I can tell you a great deal more about how you can get one of these beautiful ponies, than I can possibly tell you on this page. **Do not delay. Write me to-day.**

Yours for a pony,

*The Pony Man*

P. S.—If you want to make sure of a prize the very first thing, do not wait to hear from me, but start right out as soon as you have sent the coupon, and get ten of your neighbors and friends to each give you 25 cents for a subscription to FARM AND FIRESIDE to run the entire balance of the year 1909. Keep 5 cents from each subscription and send the rest with the names to me. You will then be a bona-fide contestant and right in line to win "Dandy," and I will put you down for a prize **right then** so you will be **absolutely sure** of it. Hurry and get ten subscriptions. You can do it in a day or two if you hustle. Send the coupon to-day.

THE PONY MAN OF

FARM AND FIRESIDE  
SPRINGFIELD, OHIO



\$600 Harrington Piano  
Four of These Superb Pianos Are Offered in This Contest

Feb. 25

Dear Pony Man—

I want to get a pony. Please write me by return mail, telling me how I can get one, and send me all the pony pictures, the other pictures, and full information, without cost to me.

Name.....

St. or R. R. ....

Town.....

Date..... State.....

CUT THIS COUPON OUT—FILL OUT AND MAIL TO-DAY





## Young Folks' Department



### Cousin Sally's Letter

DEAR BOYS AND GIRLS:—  
As nothing of much importance close at hand has happened since my last letter, I thought it would be interesting to tell you a story from old Greek Mythology, about how the peacock happened to have so many beautiful spots on its tail. It's a fascinating little story and one every boy and girl should know.

Many, many years ago, when gods, goddesses and nymphs were supposed to dwell upon the earth and in the heavens, Jupiter, god of the heavens, fell in love with a very beautiful maiden, named Io. Fearing lest his wife, Juno, should learn of his love and become jealous, he transformed Io into the form of a heifer. When Juno met her husband in the clouds she noticed the heifer, and praising its unusual beauty, begged Jupiter to give it her as a gift. Poor Jupiter! What could he do? There was no alternative, and so with reluctance he consented. Juno thought that Jupiter seemed too fond of the heifer, and so she asked Argus to keep close watch over her.

Now Argus had a hundred eyes in his head and never went to sleep with more than two at a time, so he was able to watch Io constantly. He fed her during the day and at night tied a horrid old rope around her neck. How she longed to stretch her arms out and beg Argus to have pity on her and give back her freedom. But alas! she had no arms to stretch out! And what was worse, when she tried to speak, her voice sounded like a bellow, that frightened even herself.

At length Jupiter could stand her suffering no longer, so calling Mercury, messenger of the gods, to him, bade him go at once and kill Argus. Putting on his winged slippers and winged cap, and taking his sleep-producing wand, Mercury leaped down from the heavenly towers to the earth. Once there, he took off his winged slippers and cap and pretended to be nothing more than a simple shepherd boy tending his flock. He strolled along blowing his pipes. Argus was enraptured! He had never before seen or heard an instrument like it, and begged Mercury to come sit down beside him on the rock. Mercury sat down, and talked and told wonderful stories, and played beautiful strains upon his pipes, hoping that in time Argus would close all of his eyes in sleep. But in vain! One or two of them always remained open. Mercury then told him another story more interesting than all the others, and lo and behold! before he had finished, Argus' hundred eyes were closed in slumber deep, and his head dropped listlessly upon his bosom. Forthwith Mercury seized his knife, thrust it into his neck—and crash! his head tumbled down on the rocks below!

Now, Juno's favorite bird was the peacock, and as she had several of them, she took the hundred eyes of Argus and put them as ornaments on the tails of her peacocks, and there they remain to this day. As for Io, after suffering at the hands of Juno, Jupiter took compassion on her and restored her to her original form.

Don't you agree with Cousin Sally that this is a story well worth knowing, even though it is just a myth and nothing more?

Just one word more before I say goodbye. Next month I have a surprise for you, but I am not going to tell you what it is. You must watch for FARM AND FIRESIDE and find out for yourselves.  
Yours lovingly,  
COUSIN SALLY.

### Winners in Drawing Contest

L. S. Green, age fourteen, Freeport, Ohio. Lawrence Raub, age eleven, Olean, New York. Emma Bell, age fourteen, Cambridge, Ohio. Joe M. Ring, age eight, Bradley, Michigan. Helen C. Jones, age ten.

### Honor Roll

Royal Fidler, age twelve, Ohio. Margaret I. Bier, age nine, Ohio. Ethel Thurston, age fourteen, Ohio. Theresa M. Rodgers, age twelve, Ohio. Owen Paine, age thirteen, Kansas. Alda Ingersoll, age fourteen, Michigan. Effie Carpenter, age thirteen, Nebraska. Barbara Sieck, age fourteen, Illinois. Sonora E. Wolf, age sixteen, Ohio. Esther Johnson, age thirteen, Michigan. Carl Larson, age fourteen, Utah. Signie Falk, age fifteen, Michigan. Fae Johnston, age sixteen, Michigan. Dorris Sonneman, age eleven, Texas. Chester Brooks, age eleven, Missouri. Iva Pearl Yount, age thirteen, Iowa. Florence Benton, age sixteen, Ohio. Tracy B. Scott, age fourteen, California.

### Shoestring Amy's Surprise

By Sophie Kerr Underwood

THE bell had just rung for recess, and all the children came pouring out of the schoolhouse door. Millie Streeter and Teeny James came out together, and Millie was carrying her jumping rope. She was a born leader among the younger girls, although she had rather spoiled selfish ways. Teeny was gentler and sweeter, but the two were great friends.

"Oh, Jennie," called Teeny to a little girl in a pink pinafore, "you turn one end and I'll turn the other, and then we'll get somebody else, so we'll have a chance to jump, too."

"All right," said Jennie. "Let's go over there under the trees, so we won't be in the way of the ball game."

So under the trees they went, and Teeny and Jennie took their places to turn the rope, while Millie and two or three others prepared to jump.

"Salt, pepper, mustard, cider, vinegar, vinegar, vinegar, vinegar," they chorused as the rope went faster and faster and faster. Then some one's foot slipped and the rope was stopped, and they all began again, breathless but happy.

They were so absorbed that they did not notice another little girl coming slowly across the schoolyard. She was smaller than any of them, and dressed in a faded plain dress, and her braids had no ribbon, but were tied with a shoestring. She came up to where they were jumping, and looked on wistfully.

"Here, you Amy Jenkins," called out Milly crossly, catching sight of her at last, "you can't play with us. Go on away. You shan't jump my rope."

"Oh, Milly," cried Teeny, "you oughtn't to speak so."

Amy said nothing, but her eyes filled with tears, and she turned away.

"I don't care," said Millie. "She's not going to play with me or jump my rope. She's the worst-looking thing—hasn't even a hair ribbon. Look at old Shoestring Amy," she cried, pointing her finger at Amy's braid.

And some of the other girls who were great followers of Millie's took up the taunt and called after her, "Shoestring Amy! Shoestring Amy!"

Poor Amy ran away from them back into the schoolhouse. There was no one there, at least, to speak unkindly to her. When the bell rang to "take in" recess, she was sitting in her place trying to study her geography, but really thinking how very much she would like a pretty new dress and some bright hair ribbons. But she knew she could not have them,

for her mother had been sick, and all the money had gone to pay the doctor.

That night, when she went home, she hunted in the rag bag, and at last found a piece of bright calico left from a dress. She cut a strip of it and very laboriously hemmed it on both edges, thinking to make it look like a ribbon, but when she tied it on her hair it looked so queer that she tore it off and cried herself to sleep in her disappointment.

Very soon, however, the girls at school almost forgot to tease Amy in the excitement over the fact that Millie Streeter was going to have a birthday party. Her father was the richest man in town, and he and Mrs. Streeter doted on Millie and denied her nothing. So when she wanted to have a birthday party, they said "yes" at once. Milly told everybody there was to be ice cream and four kinds of cake and lemonade.

All the girls in Millie's class talked of nothing but the party. Teeny James said she was going to have a new white dress to wear, and Jennie was to have a blue challis. Louise and Lena Garey were to wear their old dresses, but had new sashes, and Emily Fletcher said her mother was going to let her wear her gold locket.

They walked out by twos and threes during recess, telling each other what a good time they expected to have, and they slipped notes to each other during school hours, saying things like this: "Millie says the ice cream will be pink," and, "Maude is going to ask if her mother will let her take her white fan."

Finally Teeny slipped a note to Millie, and in it was written, "Are you going to invite Amy?"

Millie wrote back, "No, I'm not. A pretty sight she would be with her old shoestrings at a party."

Just as she was handing the note across the aisle, Miss Green, the teacher, caught sight of it, and said severely, "What are you doing, Millie? Writing notes? Bring it to me."

Milly rose, looking very red and confused, and walked up to the platform and offered the note to Miss Green.

"Read it aloud," commanded the teacher. "No, turn and face the school."

Very slowly Millie turned, and read, "No, I'm not. A pretty sight she would be with her old shoestrings at a party."

All the children burst out laughing, all but Amy, who buried her face in her hands. Miss Green rapped for order.

"About whom were you writing, Milly?" she asked sternly.

"About Amy," muttered Milly, hanging her head. "Teeny asked me if I was going to ask her to my party."

"Millie," said Miss Green slowly, "I am very much disappointed in you. I wouldn't have believed that you would have spoken so unkindly about one of your schoolmates. Take your seat now, but you will remain after school, and we will have a talk."

This did not make Millie feel any more good natured toward Amy, you may be sure, and as she went to her seat she gave her a spiteful look. Amy felt as if her troubles would never end, for she knew now all the children would tease her more than ever. And so it proved, for even the boys began to call her "Shoestring Amy" and laugh when she appeared.

And so the days went on until the very day before the party. Millie and Teeny were walking about, arm in arm as usual, when they came to an old disused well at one end of the schoolyard. The curb was about three feet from the ground, and was covered with boards. Milly and Teeny leaned against it as they talked. Just then some one came driving down the road at a furious rate.

"Who is it?" cried Teeny. "Oh, dear, I can't see over the fence."

"Jump up here, quick!" exclaimed Millie, clambering up on the well. She bent to give Teeny a helping hand, and then cr-r-r-rack! went the boards, and down went Millie, screaming wildly and trying to catch hold of the sides of the well.

Teeny quite lost her wits, and ran screaming to the schoolhouse; but fast as she ran, some one else ran faster. Amy had seen the accident from the schoolhouse window, and had snatched up Millie's jumping rope, and run like mad to help.

She tore away the other boards, and dropped the rope down, calling, "Millie—Millie—are you hurt?"

A faint cry answered her—Millie had come to the top of the water and was frantically grasping at the slippery sides of the well. "Catch hold the rope!" called Amy, and Millie seized it. "Hold fast! They'll be here in a minute—they'll save you!" But it seemed a long time and the rope cut Amy's wrists very cruelly before Miss Green and the big boys got there. One of the boys, held by two others, hung far over the well curb, and caught Millie's hands and drew her out.

She was wet and scared, but she was not greatly hurt beyond a few bruises, but she might have been drowned if it had not been for Amy's presence of mind and ready aid.

Before Amy had started to school next morning a carriage stopped at the door of her home and Mr. and Mrs. Streeter and Millie got out. Amy opened the door, but before she could speak, Millie threw her arms about her impulsively.

"Do forgive me," she said, "for being so mean and hateful! And do come to my party to-night."

Then Mrs. Streeter kissed her and Mr. Streeter shook hands with her and thanked her over and over again for saving Millie's life. Millie ran back to the carriage and brought a package. "It's for you," she said to Amy, "and it's a secret between us."

And when Amy looked in the package, she found a pretty blue sailor suit and hat for school, and a little white dress with sash and slippers all complete to wear to the party. And in a little box was a purse with ten shining gold pieces in it, but best of all to Amy's mind was another box which held six lovely satin hair ribbons.

### Post-Card Exchange

Laura M. Smith, age eight, Clinton, Missouri. Marie Huffman, age fifteen, Grand Rapids, Ohio. Harland Atwood, age fifteen, Woodstock, Vermont. Harriet Fancher, age fourteen, Dundee, New York. Helen McCormick, age eleven, R. F. D. No. 1, Eightyfour, Washington County, Pennsylvania. Hilda Rosen, age twelve, R. F. D. No. 1, Box 62, Monroe, Washington. Mabel Calvin, age twelve, R. F. D. No. 3, Box 9, Bryan, Ohio. Pearl Larsen, age nine, Blair, Nebraska. Marie V. Valentine, age fourteen, Fishers, Indiana. Alice L. Wall, age nine, Covert Run Pike, Bellevue, Kentucky. Charles A. Scott, age seventeen, Leonard, San Miguel County, Colorado. Zadabel Gist, age thirteen, Milbank, South Dakota. Vesta Finch, age thirteen, Gardena, California. Helen H. Fries, age eleven, R. F. D. No. 1, Box 10, Frederic, Wisconsin. Hazel H. Fries, age ten, R. F. D. No. 1, Box 10, Frederic, Wisconsin.



"Look at old Shoestring Amy," she cried, pointing her finger at Amy's braid"



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## Embroidery for the Home

By Evelyn Parsons

No. 37—Oval Platter Doily (nineteen by thirteen and one half inches). A very graceful design of flower sprays in eyelet and solid work, with scalloped buttonholed edge. This doily together with the plate and tumbler doilies which we illustrated last month make a very pretty table set. The work in this piece is a combination of eyelet and solid embroidery, and while very simple, is effective, especially when in use on a table without a cloth. For the embroidery a ball of cotton is used (two threads for a needleful). The scalloped edge should be padded with a chain stitch worked with a whole strand of the cotton. Perforated pattern, 25 cents; stamped on linen, 45 cents.

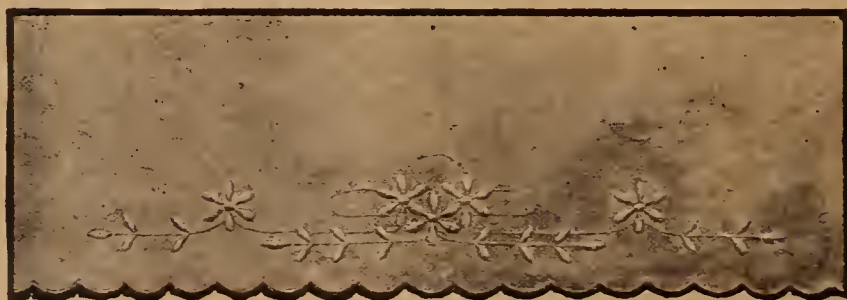


Oval Platter Doily. Pattern No. 37



Pillow Case in Solid and Eyelet Work. Pattern No. 38

No. 38—Pillow Case (twenty-two-inch width) embroidered in solid and eyelet work, with French knots for flower centers. The other half of the case is finished with the scalloped edge without the flower design. There are two materials that are used for pillow cases—linen, which makes rather an expensive article, and a fine quality of cotton. The cotton, which comes in a twenty-inch width and costs twenty-five cents a yard, is thoroughly practical and satisfactory in every way. When finished, the cases should measure forty-two inches in length. Stamped on best quality of cotton (one pair), \$1.00; perforated pattern, 25 cents; thread, 20 cents.



An Embroidered End of the Huckaback Towel. Pattern No. 39

No. 39—Huckaback Towel with embroidered ends. One end has the scallops and flower design and the other has just the scallops. Huckaback is much used for bureau and side-board scarfs. It is a very desirable material and always launders so well. With a bit of embroidery on the ends these scarfs are very attractive. Some of them are scalloped at the sides also. The towel also looks very dainty with just the edge scalloped, without the embroidery. Perforated pattern of towel end, 25 cents.



Embroidered Brown Crash Pillow. Pattern No. 40

No. 40—The popular pillow is oblong in shape and it is an agreeable change from the usual square pillow. It seems to fit well in all sorts of places. This one is made of brown crash worked with a coarse cotton in blue, green and orange. The embroidery on this pillow takes very little of one's time, as the thread is easy to work with. The squares are worked with the blue. In the middle of the square an eyelet is punched and a buttonhole stitch is worked into it, the twisted part of the stitch coming on the outside of the square. Be sure to punch the hole as large as indicated in the pattern, as a good many stitches have to be crowded into it. The circles are eyelets buttonholed with orange, and the leaves are buttonholed with green. The thread is so coarse that very little padding is needed. Make just a few stitches toward the center of each space to be filled in. Stamped on brown crash, 65 cents; perforated pattern, 35 cents; colored cottons, 25 cents.

### PRICE LIST

White Embroidery Cotton, per Ball, . . . . . 10 Cents  
Stamping Paste, per Box, . . . . . 10 Cents

NOTE—Our stamping paste is the best made and one of its strongest features is that it is perfectly easy to work with. Full directions for using are given with each box.

NOTE—Order Miss Parsons' embroidery patterns by number from the "Embroidery Department," Farm and Fireside, Springfield, Ohio. Remit by money order, currency or stamps.



## THE Million Club

Organized to Save You Money



John L. Thompson, Secretary of the Million Club.

### TO EVERY READER of Farm and Fireside

In this number of FARM AND FIRESIDE I want to tell you still more about the Million Club—our new organization for saving money for our millions of readers.

There is no secret about the Million Club. Its members just give us a few moments of their time now and then—possibly but once or twice a year. In return we save them money on anything they want to get for themselves, their homes or their farms.

### Costs Nothing to Join

It costs nothing to join the Million Club. There are no dues, no initiation fee, no assessments of any kind. All that is required is a desire on your part to save money. It means money in your pocket from the very day you join.

The Million Club already has thousands of members. You can be a member just as well, whether you live miles from a town or in a good-sized village. In fact, our most prosperous members live on rural routes.

That Million Club members are more than satisfied is proved by dozens of letters like the following:

I received my bicycle safely and it certainly is fine. I am delighted with it.  
ALLEN M. LOVE,  
R. F. D. 2, Dayton, Ohio.

The sewing machine you sent me is surely beautiful. I could not possibly be more pleased.  
MRS. H. J. JARVIS,  
R. F. D. 2, Delaware, Ohio.

The buggy you sent me is a beauty. I am well satisfied with FARM AND FIRESIDE, as they sent me a better buggy than I expected.  
ORRIN E. HILL,  
Kennedy, New York.

Send me your name and address on a postal card, and tell me you want to join the Million Club. I will immediately send you our big Reward List, postpaid, containing illustrations of over 300 handsome and useful articles that you can get. I will also send you a complete outfit and full particulars about the Million Club, entirely free. Write me to-day.

JOHN L. THOMPSON, Secretary  
**THE MILLION CLUB**  
Farm and Fireside, Springfield, Ohio

## Soul of Honour

[CONTINUED FROM PAGE 21]

"Excuse me," said Taunton, "we were friends, that's quite true. But many things come to an end, and our friendship is one of them."

"Come, Jack," he said, "do show some common sense. We'll leave her name out of the question if you like."

"I should like it very much," said Jack. "Very well. Now look here, I want to make an appeal to you, and whatever reason you may think you have for being jealous of me and for disapproving of my conduct generally, I am sure you are too decent a fellow to be unjust. I don't mind telling you that I depended on the help you've been giving me for the last few months, and if I have it's your fault, for you threw your money about like a millionaire, you practically told me that I could depend on you, and you never warned me that you had designs on Hyacinth until I had committed myself and it was too late. Added to which you then go about raking up a foolish love affair of mine and playing Don Quixote; although there's no earthly reason that you should mix yourself up in the matter at all."

"Have you done," said Taunton, "because I am going to Scotland to-night, and I am busy."

"No, I have not done, so keep your patience a little longer. You must see that you've placed me in an atrociously awkward position, and I want you to help me out of it. The fact is, I am at my wits' end and absolutely at the last gasp for ready money, and the truth of the matter is, Taunton, that if you do finally withdraw your friendship and your help from me I can't think what on earth I am to do."

Taunton had no answer ready; the amazing impudence of the man before him almost took away his breath.

Marcus went on speaking in a hurried, eager manner, standing by the side of the table at which Taunton sat, and absently drawing his gray suede gloves through his hand as he spoke.

"I have struggled on as best I can," he said, "and tried to put a good face on it to the world, but the situation is becoming more and more complicated. Only last night her father mooted the question of settlements. I had been dreading that he would begin about them. The fact of the matter is that I don't feel in the least sure that that old brute Vannister means to do anything for me at all, and I have been obliged to draw the long bow a little and represent him as looking upon me more or less like an only son, whereas it's a year since I saw the man, and when I did he spent most of his time in abusing me. Now, what I want you to do is this: Lend me a little ready money, just a five hundred or so to tide me on for the present, and say a good word to Vannister for me. He thinks the world of your opinion, and he told me last time that if I were only like you he might be prepared to do a good deal for me. Now, why shouldn't you write him a letter pointing out to him that this marriage will be the making of me, that I shall thoroughly settle down and turn over any number of new leaves. Come, what do you say to that?"

Taunton sprang to his feet and pointed toward the door. "I say this," he said. "You are either the most unspeakable idiot on the face of the earth or you have come to me out of bravado. Which ever it is, you can take yourself off. You might as well ask help of Honour Read as of me."

Marcus whitened with rage. Probably neither of the motives which Taunton ascribed to him had brought him here. Nothing but the ingrained conceit of the spoiled child of fortune, who felt whatever his crime or follies might be, that it was an honor for an outsider like Taunton to help him.

The men stood facing each other, something like a couple of dogs, yearning to fly at each other's throats, and then all at once Quinten realized that the game was up. He took a step forward.

"After all," he said, "if you are so much in love with her perhaps I might waive my rights in return for your friendship. It would be easy to explain matters so as to alter her mother's mind. What do you say?"

Taunton sprang forward. "You cur," he said, slowly. "I take your meaning well enough. For my money you will hand me over your love. I refuse such a bargain. I'll fight you straight, but not with your dirty weapons," and Marcus, unable to stand any longer that fiery look bent upon him turned abruptly and left the room.

[TO BE CONTINUED]

# The Battleship Fleet

Twenty Pictures in Beautiful Colors

## Our Gift to You



These are very small illustrations of a few of the battleship pictures you will receive

FARM AND FIRESIDE wants to give a handsome set of twenty battleship pictures in colors, and on post cards, to every person who accepts the liberal reduced-price offer below. These pictures represent our great battleship fleet on

### Its Trip Around the World

the most wonderful achievement in the world's Naval History. Every American feels justly proud and will want these pictures of the great battleships that have brought such honor to our country. There are twenty beautiful pictures in the set, each different and each in the exact colors of the ships. Among the ships pictured are the Connecticut, Kansas, Vermont, Louisiana, Georgia, New Jersey, Rhode Island, Virginia, Minnesota, Ohio, Wisconsin, Maine, Alabama, Illinois, Kearsarge, Kentucky and others. These great battleships have visited nearly all the principal countries in the world on their wonderful 35,000-mile trip.

## FOR 20 Days Only

you can get these superb battleship pictures with all the rest of the offer below for only 25 cents. Included in the offer is a large ensemble drawing 10 by 5 1/4 inches showing the entire battleship fleet off Callao, Peru, practising the "Gridiron" formation. This formation is considered by naval authorities the most dangerous evolution in steam tactics and its improper execution caused the loss of the British battleship "Victoria" with 798 men. Each vessel in the formation is numbered and can be identified. We also include a map of the entire world showing by dotted lines the exact route and each stopping place of the great fleet.

## What You Get

Included in This Low-Price Offer Are All of the Following

**Farm and Fireside** for the balance of 1909—20 numbers—equal to 1400 magazine pages—more reading matter than any \$4.00 magazine.

**20 Pictures in Color** of our great battleships just returned from their 35,000-mile trip around the world—each different—a beautiful collection.

**The Fireside Post-Card Exchange** with list of all the members who will exchange post cards with you, sending you hundreds of pretty cards.

**The Battleship Fleet** and scenes on board the ships during the trip are accurately and truthfully pictured.

**Two Other Pictures**—one a large picture of the entire fleet practising the famous "Gridiron" formation, the other the most beautiful child picture of the year, in colors, 11 by 14 inches, in perfect condition for framing.

**A Map of the World** showing by dotted lines the exact route of the fleet around the world, the places where it stopped, the distance from each place to the next, and all the countries visited.

ALL PREPAID  
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**25c**

Less than the regular price of Farm and Fireside alone.

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I enclose 25 cents for which I accept your Special Low-Price Offer, including the battleship pictures—all postpaid.

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Feb. 25 State .....

Date .....

P. S.—If you send the subscription of a friend, write it below.

### SPECIAL NOTICE!

If you will send us the subscription of one friend besides your own, we will send both you and your friend the battleship and other pictures mentioned above, and in addition will send you fifteen post cards containing thirty pictures from all the countries visited by the battleship fleet, each different, postpaid.



# Low Fares

to the  
**Cheap Lands**  
of the

**Mar. 2 and 16**  
**April 6 and 20**

Plan to go on one of these days—take advantage of the low fares offered by the Rock Island-Frisco-C. & E. I. Lines, and see for yourself the opportunities that are open to you in the Southwest. The trip will not cost you much. These special low-fare tickets over the Rock Island-Frisco-C. & E. I. Lines will permit you to go one way and return another, without extra cost. As the Rock Island-Frisco Lines have over 10,000 miles of railway through the best sections of the Southwest, you will see more of the Southwest than you could in any other way, and will be better able to decide where you want to locate.

Ask the ticket agent in your home town to sell you a ticket over the Rock Island-Frisco-C. & E. I. Lines, either through Chicago, St. Louis, Kansas City, St. Joseph, Memphis or Birmingham, according to your location.

If you will write me a postal and tell me where you want to go, I will tell you the cost of a ticket, and will send you a complete map-schedule, showing time of trains, together with illustrated book.



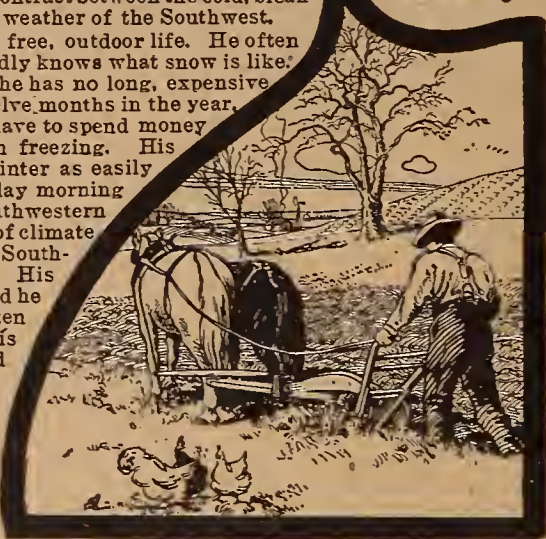
Texas, Oklahoma, Arkansas, Louisiana, New Mexico, Kansas and Missouri

A trip to the Southwest now will give you a good chance to get away from the cold weather. See what kind of a winter the Southwestern farmer is having. You will see a great contrast between the cold, bleak winter of the North and the fine, open weather of the Southwest. The farmer in the Southwest lives a free, outdoor life. He often begins his plowing in January. He hardly knows what snow is like. His stock has good range all year, and he has no long, expensive feeding periods. He works outdoors twelve months in the year, makes money while you are idle and have to spend money to keep your family and stock from freezing. His children go to the nearby schools in winter as easily as they can in spring and fall. A Sunday morning drive to church is a pleasure to the Southwestern farmer. Added to all these advantages of climate is the great advantage the farmer in the Southwest has over you in the price of land. His land costs only from \$5 to \$25 an acre, and he can raise bigger crops than you can. Often he gets two crops a year. His land is growing more valuable every year and he is getting rich.

Let me send you some interesting books about the Southwest. They will inform you of opportunities waiting for you there, and will open your eyes to new possibilities. Write for free copies today.

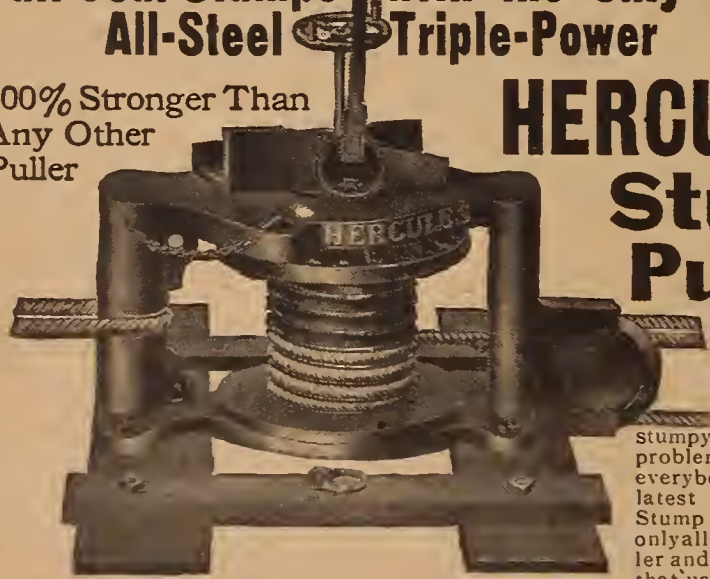
**JOHN SEBASTIAN, Pass. Traf. Mgr.**  
1853 LaSalle Station, Chicago  
1853 Frisco Building, St. Louis

**Plowing in January**



## Pull Your Stumps with the Only Genuine All-Steel Triple-Power

400% Stronger Than  
Any Other  
Puller



## HERCULES Stump Puller

There is no longer any excuse, Mr. Farmer, for you having stumpy fields. The problem is solved for everybody with the latest steel Hercules Stump Puller. It is the only all-steel stump puller and is the only one that uses triple-power.

## Hitch On—The Stump is Bound to Come

The strength is there and the power is there. You may have had trouble with iron pullers, but this Hercules genuine steel puller is a different matter. It has 400% more strength than the best iron puller ever made, and with our triple-power attachment a one-third greater pull is developed. The Hercules is in a class by itself.

It is the only stump puller that is guaranteed for three years. The only stump puller made with double safety ratchets, making them doubly safe. The only stump puller having all bearings and working parts turned, finished and machined, reducing friction, increasing power and making it extremely light running.

### Look At This Table

You will see why we have made the Hercules of steel. The table gives the strength per square inch of each different material. Steel is the only material for the Hercules.

### Don't Risk Dynamite

It's dangerous and it's costly. Besides, it only shatters the stump and leaves the roots in the ground to grow again. The Hercules pulls roots and all, big stumps and small stumps, good sized green trees, hedgerows, etc. It is the machine for satisfactory work and keeping down the expense. Investigate it now. Our little hooks are eye openers for people who have clearing to do. Let us send them to you. Free. Write today.

**Hercules Manufacturing Co.**  
334 17th St., Centerville, Iowa

Cast Iron  
16500 lbs.  
Copper  
19000 lbs.  
Bronze  
36000 lbs.

Malleable Iron  
40000 lbs.  
Wrought Iron  
47000 lbs.

**STEEL**  
120000 LBS.

## Farm Notes

### Uses of the Corn Stalk

WHILE in some localities the stalk is prized as highly as the grain, in most sections of the great corn belt, the stalk, or fodder, is almost a waste product. It takes fertility to grow stalks, and if a very good crop of ears can be made on medium-size stalks, the draft on the soil is greatly decreased.

The matter has been considered by scientific corn breeders, and we can see some of the standard varieties making large ears on the stalks below medium size. A few years ago a Mr. Radle of Missouri, who had worked for several years toward a smaller stalk, had the result of his experiment on exhibition. They showed plants of a yellow corn much resembling the Leaming, the stalk scarcely six feet high and bearing an ear above the average Leaming size.

It was thought that Mr. Radle was somewhat of an extremist in his methods, as he said that during the course of his experiments he observed the growth of the plants from which he proposed to select his seed from the time they were eighteen inches high, and in the end found that those that had a low stalky growth at first were those that were of the same habit at maturing. It is very certain that he had some excellent results to show for his work.

Indiana. W. S. KOONTZ.

### Waste Places—Cleaning Up and Turning Into Profit

THERE is enjoyment in working a waste into a thing of beauty and profit. Then, still more, there is enjoyment in doing something that will be a pleasure to others. And the cleaning up of waste places along the roadside and in the fields, and perhaps around the house, will surely be doing that which will please the sight of others who are passing by.

A swamp is an unsightly place as well as a disease breeder. Then there are the returns, which are quite large. I now have in mind a man in my neighborhood who only a few years ago had a swamp near his house, and with just a little work in draining and cleaning up he has made it into one of the best garden spots that I have ever seen. It is simply astonishing the amount of garden stuff that is now raised on that spot, which only a few years ago was nothing but a low, nasty pond of water. Of course, it is not consistent to think that all waste places can be cleaned up at once; but the sooner it is begun, the sooner it will be over. Nor can we expect to get the largest profit out of the waste places the first year. It will depend somewhat on the kind of waste it is—whether a swamp in the middle of the field to reclaim, or a heap of rocks to dispose of. Then it will depend on the kind of after treatment it receives. Some places will bring more profit when put in one thing and some in other things. This is a matter that should be studied out by the individual farmer.

Rock heaps such as I have often seen in the middle of the field are a nuisance and very unsightly. The ground is unprofitable where they are, and the rocks are doing no one any good. If some unsightly hollow or mud hole is filled with them, then there are two pieces of ground that are capable of becoming profitable.

A scraggly apple tree is in a sense a waste place, for of what profit are those dead limbs and suckers? How much better a well-trimmed tree looks. The fruit is much better, therefore more profitable. Who is there that likes the small, hard, wormy apple, when with a little cutting away of the useless wood large fruit can be had?

A clean yard will create a disgust for a dirty or a cluttered-up one.

A well-kept lawn or garden shows energy and thrift, while weeds or anything that in any way disfigures garden, field or even the small corner shows a lack of thought and a good deal of shiftlessness.

How slovenly it looks to see bushes on the side of the road, a bunch of bushes here and there in the field! There is no profit in them.

Such farms can be improved, so that from being able to produce little else but weeds, they will raise the largest and best of crops.

We may see from this that the weeds in the garden corner very clearly convince others that there are weeds in our mind and education.

The idle months of winter and spring are an ideal time to look after such things, and I am sure that the time spent in cleaning up such places will be time spent very profitable. R. B. RUSHING.



## Do you want a fine farm for little money

—a farm that is bigger than you can afford to own where you live now?  
—a farm that will grow bigger crops than you can grow on your present farm?  
—a farm that will make you a good living and leave you some profit besides?  
—a farm that will grow more valuable each year? You can get such a farm

### in the Southwest

along the Cotton Belt Route in Southeast Missouri, Arkansas, Louisiana and Texas. Some of the finest land in the Southwest lies along this line. It can be bought on easy terms for \$5 to \$25 an acre.

The low rates offered by the Cotton Belt each month would make a trip of investigation very cheap and profitable.



Do you want to know more about this land? Write me for free copies of beautifully illustrated books about this great country. It will pay you to read them. Write today.

**E. W. LABAUME,**  
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## In the green fields OF VIRGINIA

Where the summers are long and delightful; where the winters are short and mild. Here you can grow splendid crops at small cost. Rich soil, abundant water, excellent markets and good neighbors.

Desirable Farms can be secured for **\$10 PER ACRE AND UP**

along the N. & W. Ry. Full information and valuable booklet upon request

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We ship on approval, without a cent deposit, freight prepaid. DON'T PAY A CENT if you are not satisfied after using the bicycle 10 days.

**DO NOT BUY** of tires from anyone at any price until you receive our latest art catalogs illustrating every kind of bicycle, and have learned our unheard of prices and marvelous new offers.

**ONE CENT** is all it will cost you to write a postal and everything will be sent you free postpaid by return mail. You will get much valuable information. Do not wait, write now.

**TIRES, Coaster-Brakes, Bull-**  
up-Wheels and all sundries at half usual prices.

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## HARVEY BOLSTER SPRINGS

Soon save their cost. Make every wagon a spring wagon, therefore fruit, vegetables, eggs, etc., bring more money. Ask for special proposition. Harvey Spring Co., 729 17th St., Racine, Wis.



Free Trial To You

## MONEY MAKING FARMS

Oranges, figs, peaches, vegetables and staple crops pay \$100 to \$300 an acre. Our land is located where the temperature ranges between 55 and 80 degrees above zero the year around. This land is high, perfectly drained, pure water, half hour from city (29,000 pop.) and near to Gulf. Ideal place for home, health, profit. Low price, easy terms, attracting desirable class of settlers. Free booklet.

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## WANTED

If you desire to sell property which you own in the U. S. or Canada, such as a **FARM** or a business, write at once for our new successful plan of selling direct, without commissions. If you want to buy desirable property, write for our magazine which contains choice opportunities all over the country, for sale direct by the owner with no commission added.

**BUY** American Investment Association **SELL**  
633 20th Av. N., Minneapolis, Minn.

## Cheap Tennessee Farms—Making Men Rich!

Fortunes are being made on fertile Tennessee farms. They raise big crops of Cantaloupes, Cabbage, Tomatoes, String Beans, Green Corn, etc., also Horses, Cattle, Sheep, Swine, Poultry and Eggs. Write me at once for Free Literature. I'll tell you how to get one of these splendid farms for \$5 to \$20 per acre. Act quickly! H. F. Smith, Traf. Mgr. N. C. & St. L. Ry. Dept. S, Nashville, Tenn.

**Virginia Farms and Homes**  
FREE CATALOGUE OF SPLENDID BARGAINS.  
R. B. CHAFFIN & CO., Inc., Richmond, Va.

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or woman in every community to represent FARM AND FIRESIDE. Liberal pay for whole or part time.

Special cash prizes each month for special merit. Supplies and instructions free. Any one of average education and ability can make good money and build up a permanent business. Apply, giving references, to

**FARM AND FIRESIDE, Dept. S, SPRINGFIELD, OHIO**



# Let Your Crops Pay For Your Home In Sunny Southern Alberta

## On Our New Guaranteed Crop-Payment Plan

**YOU'LL** be interested to investigate this splendid new opportunity if you just write for one or more of these books and the facts about our new Crop-Payment Partnership Plan, on which you can obtain a splendid home in Sunny Southern Alberta.

Become an "Alberta Home-Maker" like this man from the States who writes us November 7th from Pendleton, Oregon—"After an honest and searching investigation of conditions in Alberta, I know that you have the best land proposition on the American Continent—I have been in Oklahoma, Northern Texas and Eastern Oregon, and I believe I have laid the foundation for an independent fortune for my family in this section of land (in Alberta)."

We want you to read the facts about this wonderful country, and when you do we hope that you will decide to become practically  
**A Partner of the Canadian Pacific Railway  
Company and Your Fortune is Made**

That's what you can do. That's what thousands of others are doing. Let us send you the copies of the letters from people who are now making homes in Sunny Southern Alberta—people who have come with their families from such states as Illinois—Iowa—Missouri—Idaho—Oregon—Oklahoma—Texas, and, in fact, from all over the United States, to join us, and who, with our help, are making splendid homes for themselves in this wonderful country.

We own and are offering over 15,000 farms—over 3,000,000 acres of the finest farm land on the Continent, in Sunny Southern Alberta.

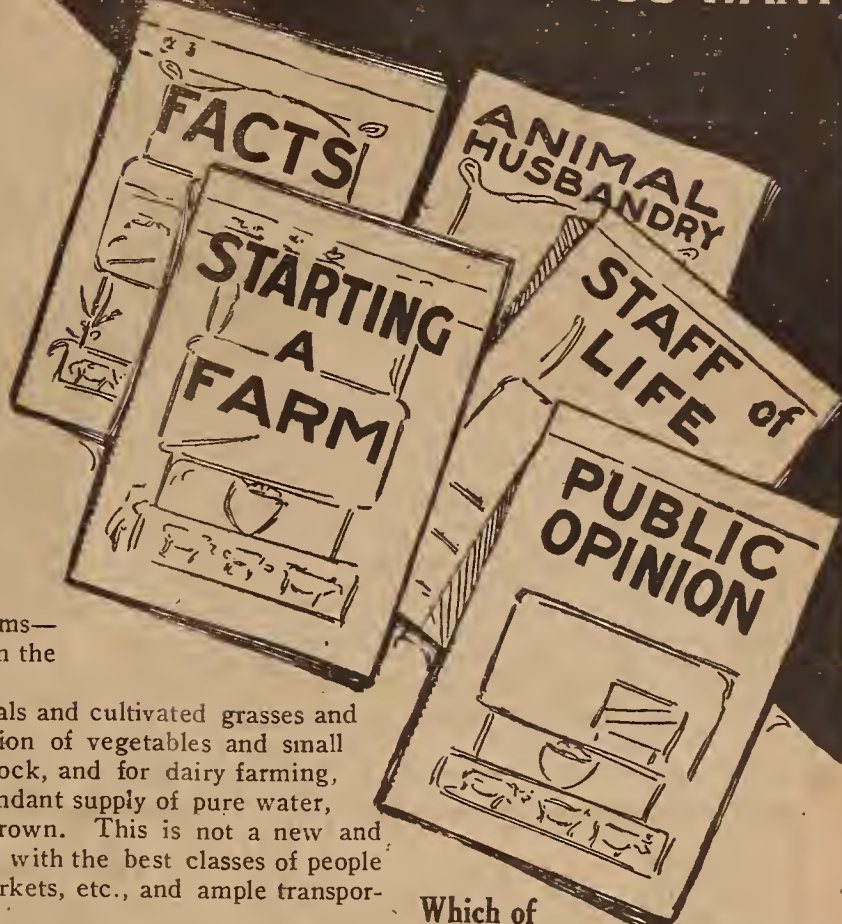
This land produces abundantly all the cereals and cultivated grasses and alfalfa. It is unequalled also in the production of vegetables and small fruits. It is an ideal place for raising live stock, and for dairy farming, because of the rich, luscious grasses, the abundant supply of pure water, and the ease with which forage crops are grown. This is not a new and unknown country, but is being rapidly settled with the best classes of people—splendid towns, good schools, churches, markets, etc., and ample transportation facilities through the entire section.

## We Help You Every Way Possible to Make Your Home-Building Successful from the Start

You will find here a land of almost continuous sunshine the year around, with a splendid, permanent water supply, and as one man says in writing about his place, "Crops being harvested in delightful fall weather, roads in good condition late in the fall, and all kinds of stock fat and sleek from the excellent native grass which covers the entire country."

The soil is such that it will produce heavy crops continuously, and the mild winds which sweep eastward through the mountain passes west of this Famous Bow River Valley Reservation melt away the snowfall two or three times during the winter months, making this the most delightful season of the year.

## CHECK THE BOOKS YOU WANT



### Which of These 5 Free Books Telling About Our Home-Making Plan in Sunny Southern Alberta do You Want?

With the books you select we will send you full information, low prices, description of the land, all the facts about our guaranteed crop-payment plan, and show you how you will practically be a partner of the Canadian Pacific Railway Company in building up your own fortune in this country.

No. 1—"FACTS"—This book is an encyclopedia of information on mixed farming, including live stock, dairying, etc., in Sunny Southern Alberta. It also includes complete details about our crop-payment plan.

No. 2—"STAFF OF LIFE"—This is the story of the wonderful winter wheat production in Sunny Southern Alberta, which you will find most interesting and profitable to read.

No. 3—"PUBLIC OPINION"—This book includes letters from present home-owners and home-makers in the Bow River Valley in Sunny Southern Alberta. You will find it most interesting and profitable reading. It contains facts which every man ought to consider both before and after he makes up his mind to take advantage of these opportunities.

No. 4—"STARTING A FARM"—This book shows the advantages that a farm in the Bow River Valley in Sunny Southern Alberta offers to the city man as a place to raise his family and to make an independent fortune. It contains the facts regarding the actual cost of starting a farm, and gives you a very accurate idea of just how you can proceed at once, or in the near future, to get one of these farms for your own.

No. 5—"ANIMAL HUSBANDRY"—This book tells the story of the unequalled facilities presented in Southern Alberta for the development of the ideal diversified farm. Here live-stock feeding and dairy production on the rich alfalfa meadows is shown to lead to certain success.

## COME TO CANADA

You, or any man who secures a home in this favored locality now will, like the pioneer farmers in the States, become absolutely independent in a few years.

On this new Partnership Plan of ours—in order to do everything possible and encourage the better class of settlers to come here and make homes—we maintain pure bred male stock which is at the service of farmers on these lands—Free of charge.

If you do not wish to come and take up your land at once, we will make a proposition to you, at present low prices, by which you can secure the land you want and then come later. We will make a very reasonable arrangement, and contract to break, cultivate and seed such parts of your lands as you wish, and start the crops, so that by the time you wish to come here, your crop will be ready to be harvested so that you get the profits.

On our new Crop-Payment Partnership Plan you are given a long time to pay for your land out of a share of the profits that you get from the crops. Our agreement means just what it says—"No Crops—No Pay." It means just what it says in protecting you against any possible bad luck with your crops while you are paying for your home. We know that crops in Sunny Southern Alberta are as certain and sure and profitable as it is possible for crops to be in any part of the world so we are willing to say this to you and make our agreement with you based on the *no crop—no payment* plan for each season.

You will not find it possible to secure home farms in any other section in the world on such liberal terms as we will make with you for such high grade lands that are becoming so rapidly very much more valuable from season to season. This is the country where you do not have to work so hard to get the best results and to make your home comfortable or to *own your place quickly*.

It is a country for workers, not dreamers—a country to which the youth of the world is traveling in search of fortune—a country to which the fathers and mothers of families are coming with the certainty of future happiness and independence. We want you to read about this wonderful country in Sunny Southern Alberta and decide for yourself in advance whether you want to take advantage of the low prices and splendid opportunities to select choice places in this country *now*.

You will find in the honest, enthusiastic, straight-forward statements of hundreds of settlers up here now, the welcome words of the neighbor—"come on along with me."

No matter where you live now you can't afford to delay investigating this remarkable offer of farm lands where the richest harvests in America have been grown this year.

We will make better prices for you on this splendid land than you can get on land of anywhere near this value in any part of America and we will make the terms on our Partnership Crop-Payment Plan so reasonable that you cannot afford not to come here.

We want you and your family and all good people to come here—it is the good home-makers, the good citizens, the good farmers that we want—not their money, not to sell off our lands, but to get you here so that you'll be doing your share in the up-building of this rich valley in Sunny Southern Alberta. We want you to make your big share in the profits of this great movement and in the advanced values of these lands. So write us for the books illustrated above and send us your name and address to-day and let us explain to you our new Crop-Payment Partnership Plan. Address

J. S. Dennis, Asst. to 2nd Vice-President

**CANADIAN PACIFIC RAILWAY**

Colonization Dept., 244 9th Ave. West, Calgary, Alberta, Canada



**The  
Alberta  
Home-Maker**



# TRIPLE ACTION IS THE ONLY REAL SAFETY

You don't need to worry about it. You don't need to wonder whether the "safety mechanism" is going to work or not. The

HOPKINS & ALLEN

# TRIPLE ACTION

## Safety Police Revolver

Insures Absolute Safety

The third or safety action is so plainly a safety action that a blind man can feel it and know it when he feels. It isn't an added-on mechanism. It's the action of the revolver that secures safety, positive, perfect safety all the time.

It shoots when you want it to shoot—quick and hard. When you don't want it to shoot, nothing can make it.

This is the best revolver proposition on the market. A revolver guaranteed to the fullest extent. Sent, charges prepaid, to any address, upon receipt of price. If there's a dealer in your locality, ask him to show it to you.

THE HOPKINS & ALLEN ARMS CO.  
91 CHESTNUT STREET NORWICH, CONN.

(Trade-Mark)  
Nickled Finish  
\$9.50

The Army Grip gives a strong, firm hand hold. This feature is especially particular to the revolver enthusiast. 32 and 38 cal., 4-inch barrel. Blued Finish, \$10.00. Our 1909 Gun Guide Sent Free.

This catalog gives many bargains in high-grade, low-price firearms, and much information regarding the selection, care and use of arms. Send for it now.



# Farm Notes

## Are Fathers and Mothers on the Farm Selfish?

IN THE November 10th issue of FARM AND FIRESIDE a correspondent, "E," says stick to the farm. That sounds good to me, but I would like to ask to whom "E" has reference? Is it the boys who were raised or worked their way up on the farm, or is it the old folks who have driven the boys from the farm?

When the boy becomes twenty-one years of age it is reasonably expected that he is possessed with enough intelligence to expect and demand satisfactory compensation for the work he performs. He has been working all these years, and all he has received for his hard labor was his food and clothes. Now he desires a change, one that could be easily arranged and that would be beneficial, morally, physically and financially.

But the old "gent" won't come across and do the proper thing; he has an idea lurking in that old weatherbeaten frame of his that the boys are most unreasonable to ask or even desire any pay, that they should still remain on the farm, and work right on from starlight in the morning till after dark in the evening.

I have heard old farmers who have boys say that the boys want too much wages and that they can get help cheaper. Is that so? Who do they get? When the boy has arrived at the place to demand wages, I would like to ask where is the money the boy helped to make for the old folks? The boy has received very little. If any one is in doubt, let him take a pencil and he can soon figure up what expense the boy has been, then put a fair valuation on his work, and compare notes, and he will ascertain a very large profit derived through the boys.

Now if the old folks want to keep the boys at home, why don't they say to them, when they reach their majority, "My son, you are now twenty-one, and if you desire to remain at home I will give you an interest in everything produced on the farm. I will take you as a partner, I will help you all I can, but you are to take the lead."

Now that puts the boy to thinking. He knows the farm is well stocked, and he won't be at any expense whatever, and I am satisfied at the end of the first year the old folks would wear a broad smile and the boy would be happy.

But instead, the old folks won't take any interest in the boys, won't give them any chance, consequently the boys turn up in some of the crowded cities. They know that they must take whatever wages they can get, but they get it regularly. Their places on the farm are filled by some irresponsible floaters. The old folks soon find out their mistake, but they won't acknowledge that it is their fault that the boys are not at home.

Then, again, there is the daughter. What is to become of her? She can help her mother, but she wants something else to take up her leisure moments, something she can take an interest in and look forward to and at the same time be profitable financially. Why not let her take the dairy, the garden or the poultry? Let her do the hiring of help, and manage things to suit herself. You will find that she will do things in a thorough, businesslike manner. Allow her ground for a truck patch. If she prefers it, let her do the selling. On nearly every farm there is land enough not used to comfortably keep a good-sized family.

Look at the farms that are for sale. Why is it thus? Simply because the old folks wanted all and everything that came their way, and they usually got it, too.

W. T. BURDETTE.

## Is Land Planted to Trees Land Wasted?

A FARMER in Indiana writes me that when he bought the farm he lives on, twenty-four years ago, there was a large body of heavy timber adjoining it on the west and north, and within a hundred yards of his house and other buildings, and it protected them from the biting winds that come from those quarters. Recently all this timber has been cut down, and now he is exposed to the winds that have a clear sweep for miles. He wants to know if I can tell him where he can buy a good, clear farm with woods adjoining it on the west and north.

I cannot, but I can tell him what he should have done when he saw those woods were being cut down. He should have begun planting trees, a heavy belt, along the north and west sides of his farm, especially where the buildings are. By the time the woods were removed he would have had protection of his own. This would be far more satisfactory than selling a farm he knows thoroughly and buying one he knows nothing about. He should begin the coming spring to plant a good shelter belt of rapid-growing trees, and to give it the best care, so that he will get the benefit of it quickly. He should not plant a niggardly little strip or two or three rows, but should make it wide. He should plant the most rapid-growing trees on the outside and the most useful for wood or fruit inside. He should plant some cedars and arbor-vitæ for variety, and make a belt that will effectively break the winds that now sweep the farm and yards, and restore the conditions that prevailed before the woods were cut away.

If I had only ten acres, and it was exposed to the sweeping winds, I would use at least one acre for a shelter belt. If I had a hundred acres, I would plant a belt that would be worthy of the name and would be effective. Many farmers think that land planted to trees is land wasted. This is a serious mistake. Aside from its value as a shelter belt, which many who have good ones place at high figures, the yield of wood for posts and building often amounts in one year to two to five times the value of the grain crop on any other like quantity of land on the farm.

I have noted the rapid decrease of the natural timber in this and other states for twenty years and have time and again urged farmers to plant forest trees for their own use. A few days ago I received a letter from a farmer who said he was a young man when he first read one of my articles urging the planting of groves and windbreaks by farmers. He said he thought there was little necessity for it at that time because there seemed to be so much natural growth. But the following year he saw three large tracts of fine oak woods sold to parties who cut and shipped away every good tree. This convinced him it was time to begin planting. He immediately planted ten thousand ash, hardy catalpa, walnut and other varieties of trees on a piece of rather rough land he had. His neighbors laughed and poked all sorts of fun at him. He says, "I have since sold those neighbors or their successors all the fence posts they can afford to buy at prices that made them wince. I said to them when they kicked about the price, 'Why didn't you plant when I did?' And all of them say that they did not for a moment imagine that the natural timber would disappear as quickly as it did. Ten years ago I began planting about a thousand trees a year, and I have the only timber in this locality that is large enough to cut. But many are planting now. If I had my life to live again I would buy a thousand acres of the rough timber land that has not been entirely stripped of all native growth and reforest it with catalpa, ash, walnut, oak, maple, cedar and cottonwood, and when I became well advanced in years it would yield me an income that would make me feel mighty comfortable."

It will pay farmers anywhere to plant a grove of trees that will make good fence posts and building timber. By the time it is ready to supply posts they will be needing them badly. I hope the farmers of the Middle West will plant a billion trees the coming spring.

FRED GRUNDY.

A pony is the "prince of pets" for children. Nothing else will give a boy or girl so much healthful pleasure or teach so much self-control. See our special on page 26.

LARGEST VEHICLE MAKERS IN THE WORLD

Studebaker

THE STUDEBAKER PLANT COVERS 101 ACRES

## Buggies Best To Buy

Everybody knows that the name Studebaker on a buggy or a farm wagon, or a set of harness, is an absolute guarantee of Superior Quality Long Service and Absolute Satisfaction. That's the best sort of Economy—it means a saving of money to you. Why then run any risk with "cheap" makes?

## See the Studebaker Dealer

Let him show you how a Studebaker Buggy is made—its splendid construction, style and finish, and you can see for yourself how the purchase of a Studebaker Buggy means Economy for you. If you don't know a Studebaker Dealer, let us send you his name.

Mention this paper and send us two cents in postage and we will mail you FREE Studebaker 1909 Farmer's Almanac, containing "In Oklahoma," Cyrus Townsend Brady's inspiring story of pioneer days.

Studebaker Bros. Mfg. Co.

South Bend, Indiana, U. S. A.



## Two Sacred Resurrection Plants Almost Free. (The Rose of Jericho.)



Either order separately if desired. Address FARM NEWS, 226 Washington St., Springfield, O.

Sacred Resurrection Plant. (Rose of Jericho.) These rare and curious plants grow and stay green by placing them in water. When taken out of water they dry and curl up and go to sleep. They will keep in this state for years. Simply place the whole plant into water: it will open up and start to grow in about twenty minutes. We will send Farm News, the biggest little paper in the world for the farm home, on trial 3 months for 8 cents. Send four cents to prepay postage and expense on the plants, and 6 cents for trial subscription to Farm News, 10 cents in all.

## The Battleship Fleet

Twenty beautiful pictures in colors, of our great fleet just returned from its trip around the world; a splendid map of the world showing by dotted lines the exact route of our ships; a large picture of the entire battleship fleet in the famous "Gridiron" formation—the most dangerous maneuver in naval warfare; a beautiful child-painting in colors, by Mary Sigsbee Ker, daughter of Admiral Sigsbee of the navy; and twenty numbers of FARM AND FIRESIDE (till January, 1910)—the greatest and best of all farm and family papers.

Address FARM AND FIRESIDE, SPRINGFIELD, OHIO

All These for Only

25c

—less than regular price of FARM AND FIRESIDE alone — prepaid, if you send your order by March 25th.

## PROF. HOLDEN'S BIG CORN BOOK ALMOST FREE

A B C of Corn Culture, 100 pages, fully illustrated, original, authorized, copyrighted edition, finely printed and bound, worth dollars to every man raising corn. A. I. Root, the Bee Man, says: "This book is as large as some of the 50 cent books. If every corn grower would get a copy and read it, it would put hundreds of dollars of profit in the pockets of thousands of people." The most valuable work published this century, for the farmer. All about corn breeding, corn selection, planting, cultivating, insects and remedies. The greatest authority on the greatest crop. More corn and more profit from the same acreage and the same labor. The new corn doctrine in a nutshell. To introduce we will send Farm News, the biggest little paper in the world for the farm home, on trial 3 months for 8 cents. Send 6 cents to prepay postage, royalty and expense on the Corn Book, and 6 cents for a trial subscription to Farm News 12 cents in all. Either offer separately if desired.

Address FARM NEWS, 227 Washington St., Springfield, Ohio



## I Am the Paint Man

Write Me For My New Paint BOOK  
—I also send Color Cards to Select From FREE

Two Full Gallons Free to Try You Pay No Freight to Try My Paint

I HAVE a new way of manufacturing and selling house paint that's unique—that's better. Before my plan, Paint was sold in two ways—either ready-made—or mixed by a local painter. Both these ways are at fault. Ready-made Paint settles hard in cans—and mineral pigments and chemical acting driers in ready-made paint eat the life out of Linseed Oil—which is the LIFE of all paint. Painter-Made Paint can never be properly made

by a painter—because of lack of heavy mixing and grinding machinery. My Paint is ready to use—but not ready-made. My Paint is made to order—after the order is received—packed in hermetically sealed cans—(extra size to insure a full gallon) and dated the day the Paint is made.

Pure Linseed Oil and pure, fresh paint ingredients are used in my Paint. Such materials found at local stores, are usually adulterated.

I sell my Paint direct from factory to user—at very low factory prices.

I pay freight on six-gallon orders or over.

When the order of six gallons or over is received, use two full gallons to test it—and if you are not perfectly satisfied, in every particular, return the balance of the order to me—and the two gallons

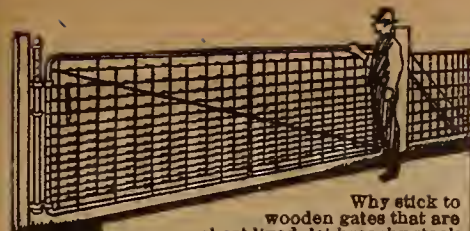
you have used shan't cost you a penny.

No other paintmaker offers such a liberal proposition. I make three brands of Paint to suit the requirements of my immense trade.

My strictly Pure All White Lead Paint is absolutely the best paint in the world. My 40-60 Brand Zinc and Lead Paint is the best paint in its class on the market. My Durability Paint has an immense sale everywhere, and is sold under five-year iron-clad guarantee. The Purity of my Paint is guaranteed under a forfeit of \$100.00 in gold. Send for my beautiful Paint Book and Big Color Cards to select from—best Book—largest Cards ever published. They are FREE. With the Paint Book I send Free Book of all kinds of Painters' Supplies, sold at Direct-to-You Prices. Write TODAY. My plan insures satisfaction and lowest prices.

O. L. CHASE, THE PAINTMAN, Dept. 19, ST. LOUIS, MISSOURI





Why stick to wooden gates that are short lived, let breachy stock through, and are always trouble-some, when you can buy

## End Your Gate Troubles

### Cyclone Farm Gates

for less money? They will outwear a dozen wooden gates, turn the strongest bull and never need repairs. Made of high carbon structural steel tubing and heavy galvanized wire—will not sag—will not rust—will not warp—will not bind, stick or rot. No wire mesh below frame for hogs to push under—can be raised to pass sheep and hogs and at the same time hold back larger stock. Easy to raise or lower—light enough for the women folk to handle. Always in working order—no springs or other makeshift parts to weaken and get out of whack. Made all heights and openings—light on the posts—hinges adjustable. Strongest, most rigid and durable gates made. Satisfaction guaranteed or your money back. Write today for free catalog.

CYCLONE FENCE COMPANY  
Dept. 109 Waukegan, Ill.

## The "Jubilee Year" of Page Fence

A Quarter-Century of Unparalleled Success

Page Fence is the Pioneer—the oldest woven wire fence on the market. Twenty-five years of test prove the supremacy of Page Woven Wire Fence in tensile strength, elasticity, durability and economy. Over 800,000 farmers, stockmen, dairymen and poultrymen use and praise it. The Government uses Page Fence as the highest standard of quality. The first Page Fence sold is still in service—never has needed repairs. The Page Fence we are selling today is vastly better. It is a genuine High-Carbon, Basic Open-Hearth, Steel Wire Fence. Money cannot buy better. Send for a free copy of the "Jubilee Edition" of the Page Catalog.

Page Woven Wire Fence Co., Box 65A Adrian, Mich.

## RANGER BARB WIRE

HEAVY SINGLE WIRE

STRONG. DURABLE.

The only absolutely successful single strand barb wire ever made.

M. M. S. Poultry Fence Saves 50%  
We make the most complete line of Field, Hog, Poultry and Lawn Fencing in the country. Write for our new catalogue.

DEKALB FENCE CO., - DEKALB, ILL.  
Southwestern Office and Warehouse, Kansas City, Mo.

## 15 Cents a Rod

For a 22-inch Hog Fence; 16¢ for 24-inch; 19¢ for 34-inch; 22 1/2¢ for 34-inch; 27¢ for a 47-inch Farm Fence. 50-inch Poultry Fence 37¢. Lowest prices ever made. Sold on 30 days trial. Catalog free. Write for it today.

KITSELMAN BROS.,  
Box 272, MUNCIE, IND.

## Cheap as Wood.

We manufacture Lawn and Farm FENCE. Sell direct shipping to users only, at manufacturers' prices. No agents. Our catalog is free. Write for it to-day.

UP-TO-OATE MFG. CO., 971 10th St., Terre Haute, Ind.

## SUPERIOR WIRE FENCE

is easy to erect and is always firm and substantial. Made from heavy gauge, high carbon coiled spring steel, bound together with the Superior Lock. Cheapest and most durable fence in existence. Prices low. Terms easy. Write for Free catalog.

THE SUPERIOR FENCE CO.,  
Dept. N. CLEVELAND, OHIO

## FENCE Strongest Made

Made of High Carbon Double Strength Coiled Wire. Heavily Galvanized to prevent rust. Have no agents. Sell at factory prices on 30 days' free trial. We pay all freight. 37¢ height of farm and poultry fence. Catalog Free.

COILED SPRING FENCE CO.,  
Box 30 Winchester, Indiana.

## WRITE FOR BEST BUGGY OFFER

In America, on famous Columbus Buggies—at prices that save you big money. Lowest factory prices offered by anyone, shipped on one month's approval. 2 years' guarantee. Get new free catalog.

Columbus Carriage & Harness Co.  
Station C8 Columbus, O.

## ORNAMENTAL WIRE AND STEEL FENCE

Cheaper than wood, combining strength and art. For lawns, churches, cemeteries. Send for FREE CATALOG. Address: The Ward Fence Co. Box 665 Decatur, Ind.

## FENCE 13c Up Per Rd.

Get our 1909 prices on any style fence. We sell direct, you get all dealers' and jobbers' profit when you buy direct from our factory. Write at once. Anchor Fence & Mfg. Co., Dept. D, Cleveland, O.

## ORNAMENTAL FENCE

25 DESIGNS, ALL STEEL. Handsome, cheaper than wood—more durable. Special prices to churches and cemeteries. Don't buy a fence until you get our free catalogue.

Kokomo Fence Machine Co.,  
427 North St., Kokomo, Ind.

## Farm Notes

### The Farm Commission

MUCH has been written in FARM AND FIRESIDE for and against "The Farm Commission," which I have carefully read and thought over, but when I read Mr. Lewis' opinion on this subject, I said way down deep, "Them's my sentiments, too," and the longer I consider it, the deeper those sentiments go.

Several years ago, while following a profession, I bought a small farm, and as soon as I got the payments going the right way I left the profession and came to the farm. A struggle it was at first, but with careful living and "Old Biddie" I have come out on top.

The following are some observations I have taken of my benighted neighbors.

In sanitary conditions, as a rule they are up with or ahead of their city cousins.

Food! I want to tell some of the things not found on the farmer's table:

Jams and jellies artificially flavored and colored with a synthetic dye or cochineal. About eighty-eight per cent of the jellies and jams on the market are impure.

Catchups made from the refuse of canning factories. When fermented they are treated with salicylic or benzoic acid. Less than twenty per cent of the catchups on the market are pure.

Milk plus water. Cream made of watered milk and annatto or caramel.

Butter made from oleo oil and carrot juice. Enough for food. You know too well what is found on the farmer's table.

For conveniences there are the telephone, furnace, mail at the door, and our little city, four miles away, is running electric lines in most every direction which give to the farmer heat, light and power. To be sure, the electric stove is not being used very extensively, but electric light and power are being introduced all the time.

There are the thriving church and Sunday school. For entertainments our day school and Sunday school are up to date.

Social gatherings are enlivened with good vocal and instrumental music, having a good orchestra composed of country people.

Some things these friends of mine do want and need are: First, a tariff which will enable us to buy our machinery as cheaply as the Russian farmer can buy the same brand; second, a parcels post; third, our bank deposits guaranteed; fourth, Lakes-to-the-Gulf deep-water way. This last mentioned lies very close to the heart of the Illinois farmer. A commission with that task, and that task only, would have received our heartiest applause.

Illinois.

N. R. HICKS.

### IN THE BACK OFFICE



THE best word in the American language, next to "love," is "sand," and "sand" is essentially an American word. If anybody thinks the country is in a bad way, if the future looks uncertain and forbidding to him, let him get a mental grasp on this word "sand" and all it stands for.

Did you ever stop to think how universally the people of this United States display this quality of "sand?" It may be in war or it may be in peace. It may be in action or it may be in patient waiting. You probably draw on your "sand" a dozen times a year to help you over the rough places—the freshets, the droughts, the blights, the epidemics.

We have the same test of fire in the publishing business. It takes "sand," for instance, to turn your back on an advertising contract which amounts to hundreds of dollars, because you can't and won't agree to give this advertiser a "send-off" in your reading columns. We have always considered these "free reading notices," as they are called, an imposition on the subscriber, and have therefore excluded them. What respect for a paper can its readers have, what weight does it carry with these readers, when it comes out one month with the statement in its editorial columns that "Jones makes the best plowshares," and the next month says, "Smith makes the best plowshares," or words to that effect?

Most advertisers, thank goodness, are now wise enough and broadgaged enough to realize the emptiness of such statements, and would rather stand on their own feet in the advertising columns and know that the other fellow has got to do the same.

# CONGO ROOFING

Backed by a Surety Bond

Hereafter every roll of Congo Roofing which we sell will be found to contain a Bond of the National Surety Co., guaranteeing the durability of Congo Roofing.

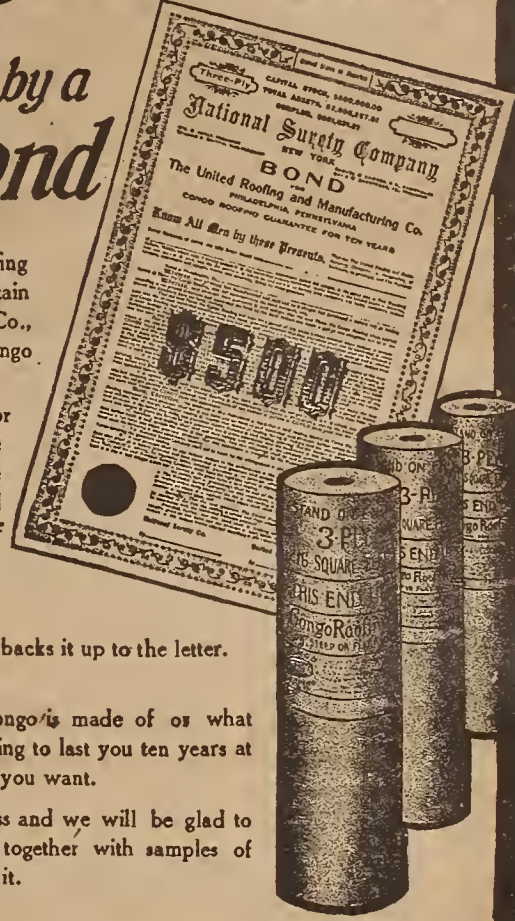
Our 3-ply grade is guaranteed for ten years and provides that if the roofing fails to give satisfactory service during that period, you are entitled to a complete new roof free of charge.

We cannot dodge this guarantee.

The Surety Company's capital backs it up to the letter. It gives you absolute protection.

You don't need to know what Congo is made of or what it looks like; you know that it is going to last you ten years at least, and that is the kind of service you want.

Let us have your name and address and we will be glad to send you a copy of the guarantee, together with samples of Congo and booklet telling all about it.



## UNITED ROOFING AND M'FG. CO.

Successors to Buchanan Foster Co.  
553 WEST END TRUST BLDG., PHILADELPHIA, PA.  
CHICAGO SAN FRANCISCO

## Great Fences



# AMERICAN FENCE

Made of wire that is all life and strength—wire that stretches true and tight and yields just enough under impact to give back every jolt and jam it receives.

Made of materials selected and tested in all the stages from our own mines, through our own blast furnaces and rolling and wire mills, to the finished product. Our employment of specially adapted metals is of great importance in fence wire; a wire that must be hard yet not brittle; stiff and springy yet flexible enough for splicing—best and most durable fence material on earth.

To obtain these and in addition apply a quality of galvanizing that will effectually protect against weather conditions, is a triumph of the wiremaker's art.

These are combined in the American and Ellwood fences—the product of the greatest mines, steel producing plants and wire mills in the world. And with these good facilities and the old and skilled employes back of them, we maintain the highest standard of excellence possible for human skill and ingenuity to produce.

Dealers everywhere, carrying styles adapted to every purpose. See them.

American Steel & Wire Co.  
Chicago  
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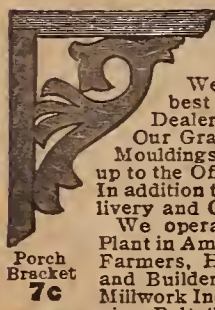
# ELLWOOD FENCE



# 5,000 - Home Builders' Bargains - 5,000

Sash, Doors, Windows, Mouldings, Millwork and Roofing of Guaranteed Grade Offered by Gordon-Van Tine Co. at Tremendous Reductions from Regular Prices Straight Shoot Direct from Mill to User, Straight Past the Middleman

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Porch Bracket 7c

We will supply you with High-Grade Guaranteed Building Material—the best made in America—at an actual Cash Saving of HALF what your Retail Dealer demands—including Freight.

Our Grand Free Catalog offers over 5,000 Bargains in Sash, Doors, Windows, Mouldings, Roofing and All Classes of Lumber. Every item we sell is Guaranteed up to the Official Grades Adopted by the Sash & Door Manufacturers' Associations. In addition to guaranteeing the Quality of our goods, we also Guarantee Safe Delivery and Complete Satisfaction or Money Refunded Without Delay or Objections.

We operate the Largest Millwork and Lumber Plant in America, selling its Entire Product Direct to Farmers, Home Owners, Carpenters, Contractors and Builders. We are located in the Center of the Millwork Industry and in the very Heart of the Shipping Belt that affords the Lowest Freight Rates Everywhere.

### We Carry Immense Stocks—Quick Shipment Anywhere

Here in our great Warehouse we carry the Largest Reserve Supply of High-Grade Guaranteed Millwork in the World. We load direct from Warehouse Platforms to cars on our own Private Switch Tracks, and ship everything by Fast Freight. This insures Prompt Delivery to any railroad station in the country. We pack our goods carefully.

Our Catalog of 5,000 Building Material Bargains is crowded full of a Splendid Assortment of the Latest Designs of Millwork, Approved by Architects of the Highest Reputation. Every item is illustrated and described, down to the smallest detail. Everything is made so clear and plain that anyone can order correctly. And we guarantee to send you exactly what you order. Our order-fillers are Experts and pick out each article just as carefully as you would if you were here to make the selection yourself.

We have been established here since 1865 and have built up this Enormous Business, with Customers in practically every Township in the United States, by giving such Big Values, Prompt Service and Satisfaction that all who send Trial Orders become Regular Customers.

## We Undersell Everybody on MILLWORK, LUMBER and ROOFING

See Prices in Free Catalogs. Satisfaction or Money Back.

By selling Direct to the Actual User of Lumber, Millwork and Building Material, we save you the Immense Profits of Middlemen. Our Catalog also saves paying the Salaries and Expenses of Traveling Salesmen. These Combined Savings amount to at least 50 per cent of Local Dealers' Prices, and every penny goes to our Customers. That's why we can and do undersell everybody in our line.

The sample Bargains listed on this page are taken at random from our Grand Free Millwork, Roofing and Lumber Catalogs. They represent only a few of our Great Departments of Building Material. We can supply you with Everything that goes into a Building above the Foundation. Whether you order \$5 worth or \$10,000 worth, we will save you at least HALF. We make the same prices to everybody. The Dealer himself cannot buy Millwork for less money here or elsewhere than our prices Direct to You. This is a strong statement, but absolutely true. Our prices are Ground-Floor, Rock-Bottom, and our Goods are the Best Made.

### Why Gordon-Van Tine Quality is the Highest

We control our own Product in every Process of Manufacture, from Tree to Saw-mill, and straight through the Model Millwork Plant of America to the Warehouse. Our Lumber is first Air-dried and then put through a Scientific Drying Process.

Joints are made with Heavy Hardwood Dowel Pins, glued with Imported Glue and pressed together by heavy Steam Power Press. Gordon-Van Tine Doors are Extra Strong. The Panels have a heavy raise on both sides and are sandpapered on a Special Machine of our own invention before the Door is put together.

The entire Door is then smoothed with fine-grained sandpaper.

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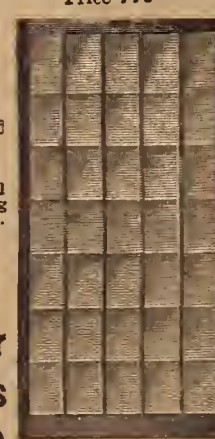
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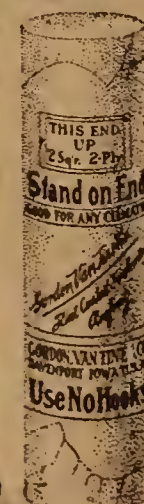
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# FARM AND FIRESIDE



Vol. XXXII. No. 11

Springfield, Ohio, March 10, 1909

Terms { 1 Year, 24 Numbers, 35 Cents  
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See Our Special Offers on Pages 2 and 38



# TO OUR READERS

**T**HIS number of FARM AND FIRESIDE is a representative number of a representative farm paper. It shows the result of hard thought and hard work, backed up with money liberally but wisely spent. It is a fair example of what the future promises to the readers of FARM AND FIRESIDE. But it is only a partial promise. Our plans for the future which are already under way include the most vitally interesting reading that has ever been put into type—facts and figures that have to do with our very existence.

No visionary theories; no impractical suggestions, but the soundest of common-sense talk. Some of this talk, for instance, will be about sanitation—drainage, sewage, ventilation, etc. There will be more articles about insurance, and helpful advice and suggestions for the accomplishment of better roads, parcels post, more efficient schoolteaching and schoolteachers. In a thousand different ways FARM AND FIRESIDE

will demonstrate during the weeks and months to come its power for usefulness and accomplishment.

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Vol. XXXII. No. 11

Springfield, Ohio, March 10, 1909

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## Farm Talk Worth Hearing

### Brains and Soy Beans

**H**IDDEN beneath the surface, there the real value lies. 'Tis a long story, too long to even outline, how we made such a crop of soy beans grow on land long in cultivation, with but slight attention ever being paid to retaining, to say nothing of increasing, its fertility. Worse still, for a number of years on a rental or crop-sharing basis this field was "scratched" over and planted in corn, following with millet, then seeded to wheat and grass. Result: Five to eight bushels of wheat to the acre, and a little grass and clover to be seen at harvest time, only to die out the following winter.

Our first wheat crop on this field six years ago under most thorough cultivation was five bushels to the acre and of very poor quality. Such farming is going on still in our section.

But we had quit a commercial life for keeps, and so we set to work in earnest. Our wheat crop on this same field,

twenty-eight inches apart at each trough. By June 20th we had two inches of growth, and a better stand was not desirable. Then we gave a cultivation. On July 1st we gave another, and on July 10th we gave the third and the last. We cultivated in the broadest sense, making our own cultivator out of a double-shovel plow, by adding a third foot just between and eight inches to the rear of the hindmost original foot. We then made the points out of old broken one-and-one-fourth-inch hack springs, keeping these points very sharp and pointed all the time. We thrashed three hundred and seventy bushels of seed beans and had twenty-eight tons of thrashed soy-bean hay.

Though seeded to wheat and clover late, too late by thirty days, yet the wheat looks well, while the clover looks better. Do we expect the clover to winter kill? Not a bit of it. Why? The acidity of the soil was overcome by the lime; we practised thorough, intense cultivation; the soy beans pumped the soil full of

### Does College Farm Help Pay?

**A** HUGE problem is continually bobbing up to harass the farmer who contemplates hiring a man to assist in carrying on his business. This might well be called a double problem. "How shall I obtain and retain a competent farm hand?" Yes, that is the question, and in many instances it remains unanswered. Why? First, because good, reliable farm help is scarce, and, second, because many farmers refuse to pay reasonable wages.

So many men will say, "No, I won't pay over fifteen dollars a month. Why, when I was a young man I used to work for ten." No doubt he did; and the chances are that his labor, from a standpoint other than "sweat and muscle," wasn't worth more than eight.

Times have changed to a great extent, but not as thoroughly as we wish to see them. From actual experience as a farm hand (having served in that capacity for a number of years) I know something of

needs. He will not quibble about fifteen dollars a month, etc., but will be willing to pay good wages to the young man who has something to recommend him—namely, an agricultural-college diploma.

Would the school laws permit a board of directors to hire an uneducated teacher simply because he is willing to work cheap? And even if the law permitted such an act, would we be willing to trust our children to the care of such a teacher? It is not the cost of such things that we consider, but we do consider the qualifications of the teacher. So it is, or should be, in employing farm help. It is not a question entirely of how much I am to pay him, but it is a question of how my soil shall be improved, my crops increased and my labor lessened. And with these points in view we decide in favor of the college-bred man.

The cause of so many farm hands being dismissed is largely due to their inability to perform their work properly. Here is where the college-bred man has



Soy Beans in Tennessee

which contains fourteen and one half acres, in 1906 averaged twenty-two and one half bushels, and in 1907 it averaged forty-five bushels of corn to the acre. In November and December, 1907, we plowed and subsoiled this field to an average depth of sixteen inches. Early in March, 1908, we applied fourteen hundred pounds of lime, and following with a disk harrow, we managed to cover most of the lime before rain came. Continued wet weather kept further work off so late in spring that June 10th came and we had just finished planting the soy beans. But we had an ideal seed bed for a cultivated crop. While our neighbors were planting we were giving this field a thorough cross plowing, and following with a spike-tooth harrow; there was no plant life left and the soil and lime were thoroughly mixed.

We planted three fourths of a bushel to the acre with an eight-hoe grain drill so arranged that we planted three rows

nitrogen; we added phosphorus and potash. What else does it want or demand? Tennessee. O. P. R. Fox.

### Facts and Fancies for Farmers

The joy of farm life often knocks at the city man's door.

You cannot judge the farmer's bank account by the clothes he wears.

The farmer who builds up his fences keeps his stock in and trouble out.

A good farmer has no trouble in seeing the good his neighbors are trying to do.

A farmer is better known by what he brings to market than by what he brings home and puts on his table.

A good farm paper is a delight to the farmer, a posted farmer is a delight to his farm, and an improved farm is a delight to the neighborhood.

WM. J. BURTSCHER.

what is needed to make the farm-hand problem a successful issue.

There are lots of young men who wisely "hire out" for a few years before going into the farm business for themselves. This affords the young man a great deal of experience which will be valuable and helpful in after years. But while this foundation is being laid, the man who employs him should be getting value received. So the prospective farm hand must qualify himself for the work. In no other way can this be so satisfactorily accomplished as by means of an agricultural-college training. This may mean an unusual effort on his part, but the end will greatly overbalance the means, for the difference between unskilled wages and the salary commanded by one well fitted in this profession will in a short time repay all college expenses.

The progressive, wide-awake farmer will not have to be kicked to make him see that help of this kind is what he

the advantage. His employer, seeing his own income increasing, allows the hired man to take hold and pull.

Of course there are exceptions—two in particular that might be mentioned. One is where the employer is so unreasonable that no amount of good service rendered by the hired man will be acknowledged. Such an employer as this deserves help only long enough to be found out, and then left to scratch for himself. The other exception is where the man from college develops what is scientifically known as the swelled head. A young man of this variety is no earthly good to any one until he gets over it. When even a college graduate gets the idea that there is nothing to be learned there is certainly no hope for him.

It is safe to assert that in obtaining and retaining a good position, the time is not far distant when only the college-bred farm hand will meet with success.

ROLLAND A. GALLIHER.



# Cement Brick on the Farm

## How They Can Be Made and Used by the Practical Farmer

For all-around usefulness on the farm there is nothing that can equal good cement brick, as they can be made in spare moments, and when "cured" and ready for use can be used in a multitude of ways, from building an entire building of them to many of the small jobs where an article of this kind is needed and required.

Their greatest point of excellence,

On each side strip mortises one inch wide and one fourth of an inch deep are cut in same, five to each strip, so they are exactly four inches apart. These are to receive the cross partitions, as shown in Fig. 1. This gives twelve spaces of an inside measurement of three by four by eight inches and enables you to mold twelve bricks at each operation. The machine or mold is made without

avoided by having two small boards of the size of brick, or four by eight inches; lay these on top of two of the brick, then with one hand lightly pressing down on the boards you can lift the cross partition without injury to the freshly molded brick.

It will be necessary to have ready a number of "pallets" if you wish to work the entire day; these can be any board

Aside from the brick you will mold two caps, or slabs, one of which is used for the fire grate, so as to allow the use of coal or wood, as desired, for fuel; the other is used for the top cap to support the kettle.

### Making Cement Slabs

As shown in Fig. 3, the construction of the mold for the caps, or slabs, is as follows: Cut lumber that is one by three and one half inches into two strips forty-four inches long and two strips forty-six inches long; join these together to make a box which is just forty-four inches square, inside measurements. Now nail several boards together so as to form a large "pallet," or bottom to this box, and in the center of same place a round mold which can be made of strips of tin or an empty cheese box; this must be twenty-eight inches in diameter if you want to use a kettle of about thirty gallons capacity, proportionate in diameter for larger or smaller kettle.

As shown in A, Fig. 3, this round mold is fastened to the "pallet" with little blocks or pieces of wood. To hold it in place, these are but lightly nailed, as all that is wanted is to hold it in position while molding the cap. Now fill with the concrete around the round part of the mold, tamping it in securely, and leave in the mold until it is dry or "cured;" usually this will require several days.

For the grate cap, or slab, use the same "pallet" and outside box, and in the center place a box which is ten inches square, inside measurements. On two sides of same cut a slot into the side about half way, five slots in each side, as shown in B, Fig. 3. These are to hold the grate rods in position while molding the concrete, and so cast or mold the rods into the concrete cap.

The grate rods can be made of half-inch iron, and these should be about sixteen inches long, so that each end will be embedded in the concrete three inches. By using five rods they are placed about one and one half inches apart, which is enough to prevent the fuel dropping through them and also allows a good draft to the fire.

The box form for the opening of the grate is placed in the center of the mold and with the rods in place the slab is molded. When dry the forms are removed, leaving the rods firmly embedded in the concrete.

As shown in Fig. 2, the first three courses of brick are laid with an opening in them for the ash door, then the grate slab is laid upon these, then two courses of brick, and in the next three is the opening for the fire door. Above that in the next three the pipe is laid in with brick—this is simply an elbow and length of common pipe—and on top of the twelfth course of brick the top slab is laid, completing the cooker.

### How to Lay the Brick

A useful rule in laying brick is to mix your mortar of one part cement to four parts of fine sharp sand. Have this wet thoroughly, and with a trowel spread on top of the first course of brick laid a course of mortar about one half inch thick when leveled, place some on the end of the brick where it joins with the one first laid, and by tamping down on top of the brick you can easily get it level with your guide line, which is stretched so as to be even with the top of the course of brick when level. The surplus mortar is easily removed with the trowel from joints where it is pressed out, and gives the job the neat appearance desired. A little surplus

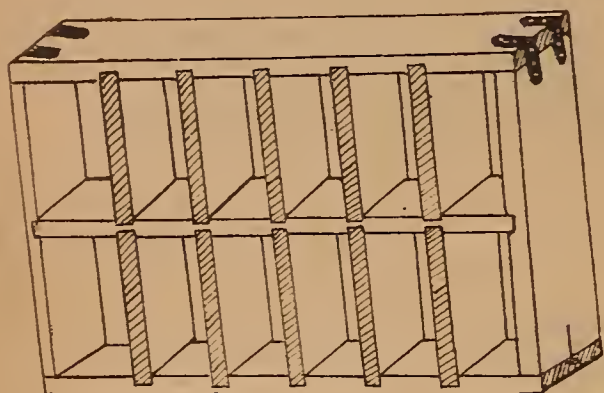


Fig. 1  
Cement-Brick Machine

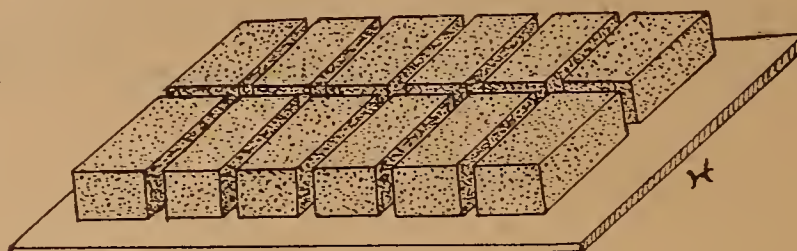


Fig. 1

aside from low cost, is the fact that they become stronger and harder with age; while the common clay brick will deteriorate with age, the action of the elements causing a gradual but sure decay, it leaves no apparent effect upon the properly made concrete brick other than to bond it more firmly together, improving its value and life.

When the common brick is laid up in mortar the action of the elements is sure to disintegrate the bond of mortar and brick. We have before us this fact in structures built in the most careful manner of ordinary brick and mortar, yet gradually crumbling into ruins. In comparison with this, cement brick when laid in a wall, using as a mortar a mixture of Portland cement and sand, will bond together to form a solid wall in which one portion has the same strength as any other, and all growing stronger with age.

The cost of cement brick when made on the farm at the average price of material will be about three fourths of a cent each; as four hundred and eighty-six bricks of a handy size, three by four by eight inches, can be made from one cubic yard of concrete, this will require approximately one and one half barrels of cement and one and one third cubic yards of aggregates, or sand and gravel. This is based on a mixture of one to two to four—one part of Portland cement, two parts of sand and four parts of small gravel averaging about three fourths of an inch in size.

While this size is different from that of the clay brick, yet it is one of the handiest for a great variety of uses, such as will be required for it to serve the farmer's needs.

### Making the Machine

The simple and easily built cement-brick machine as illustrated in Fig. 1 can be constructed by any one in the following manner: Take one-by-three-inch lumber, and cut two pieces thirty-one inches long, for the sides; now cut two pieces seventeen inches long, for the two ends; these are hinged together to make a box form open at the bottom, the two end pieces setting inside the sides, as illustrated. The hinges are placed at three corners, with the fourth corner fastening with a hook and eyelet, so that the machine can be folded back from the completed brick, without danger of breaking them while they are "green" or in a freshly molded state.

For the partitions of the mold, cut a strip from the same lumber twenty-nine and one half inches long and also ten strips eight and one half inches long. On the twenty-nine-and-one-half-inch strip cut mortises one fourth of an inch deep on each side, so as to take the one-inch tenons or partition boards. These mortises must be exactly four inches apart from the edge of one mortise to the other. This is easily done by starting at one end of the strip, measuring four and one fourth inches, then cutting a mortise one inch wide; then from that measure four inches and cut the second mortise, and so on until you have cut the five on one side, which is repeated on the other side of the strip.

Now in the center of each end strip of the machine cut a mortise one inch wide, exactly in the center, to receive the twenty-nine-and-one-half-inch strip in same, as illustrated.

a bottom, so it can be set upon a board of the proper size, to act as a "pallet," or bottom to the machine.

### Operating the Machine

The machine is placed on the "pallet," or bottom board, with all cross partitions in place; now mix your concrete in the proportions given, mixing all together while dry, then add water to make the

that is not warped, etc. As fast as one "batch" of brick is molded, move the machine to another "pallet," and repeat the operation; in this manner one man can mold hundreds of perfect brick in one day's work.

The cost of this machine should be very slight, as the hinges used at the three corners are the greatest expense, and a fair estimate of the cost of con-

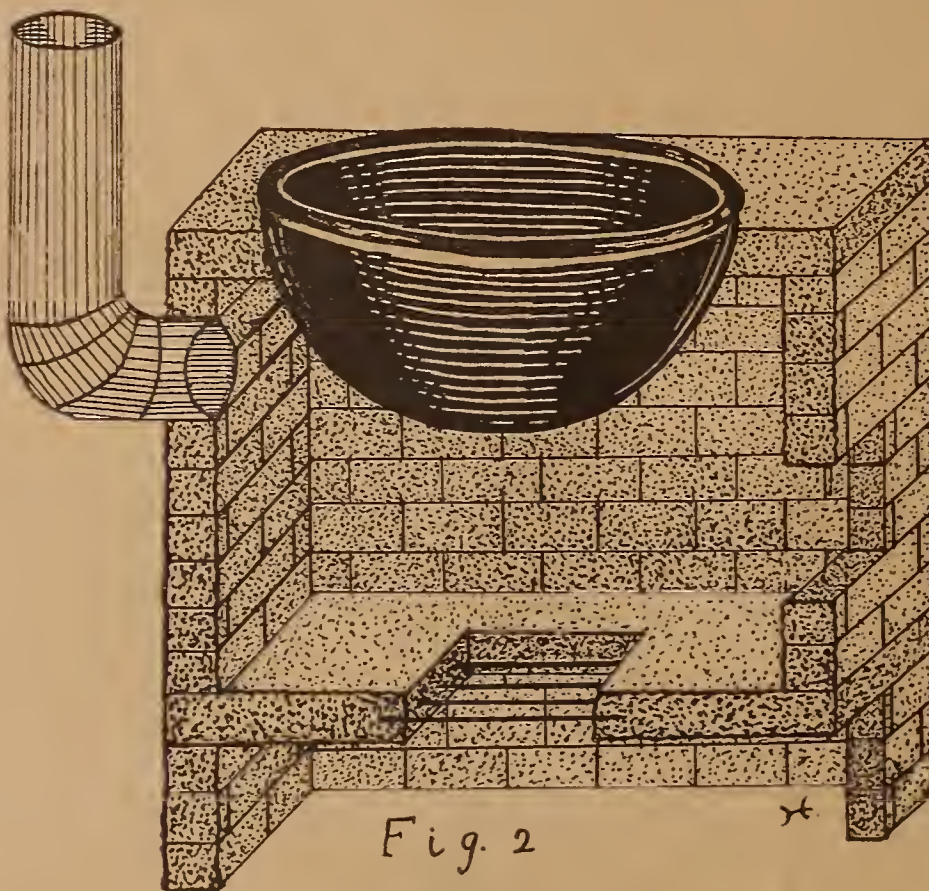


Fig. 2  
Cement-Brick Feed Cooker

mixture wet, but not "soaking wet"—just thoroughly damp, of the moisture of wet sand. Pack this into the machine, and tamp it down as hard as possible; a small block of wood is just right for this purpose. As soon as the mold is filled, level off the top with a flat piece of board, then unhook the hook on the corner of the mold and fold the sides and ends of same back, away from the

struction would be about seventy-five cents and a few hours' time. The only caution required is to have the boards cut exact, so the spaces will all be of the right size, and also the lumber perfectly smooth; hardwood is best.

If the machine is painted with two or three good coats of shellac, and this allowed to dry before using, it will mold a much smoother brick and the

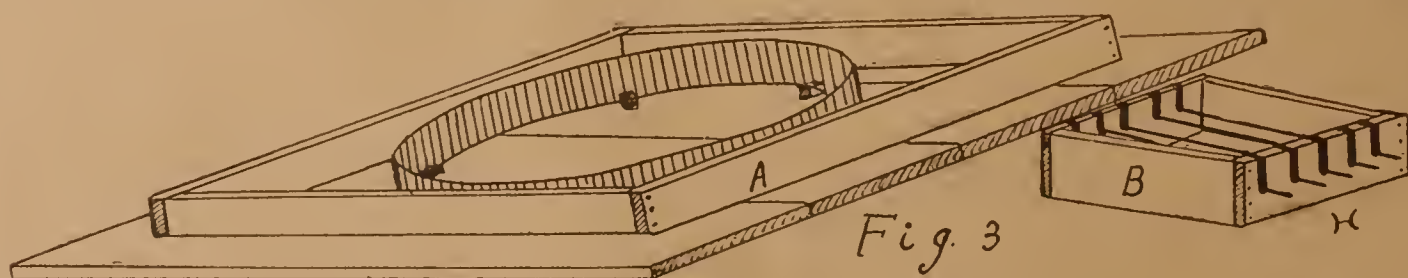


Fig. 3  
Mold for Cement Slabs

brick, leaving the cross partitions in place until you have the outside form removed, after which carefully lift out the cross partitions so as not to disturb the concrete, and leave the brick molded on the "pallet" until "cured" or until they dry.

Any danger of disturbing the concrete brick in removing the partitions can be

mortar will be less liable to stick to the mold.

### Some Uses of the Brick

By the use of about three hundred bricks and a little time a neat and useful feed cooker, as illustrated in Fig. 2, can be made. This is built as shown in the sectional illustration, which shows just one half of the completed cooker.

mortar is always best in bricklaying, as it is impossible for the novice to gage the right amount correctly at his first trial.

For the above, as well as many other uses about the farm, this simple and practical machine should solve the problem of a handy and cheap building material.

A. A. HOUGHTON.



# Education for Real Folks

By Forrest Crissey, Author of "The Country Boy," "The Making of an American Schoolteacher"

**D**o you know that the biggest boost that was ever proposed for the education of real folks is now being weighed in the congressional balances at Washington and that shortly Uncle Sam will officially decide about backing the boost with ten million dollars of real money, taking the several states into partnership with him on the deal?

It's a fact—but the realization of this fact has not yet penetrated through more than the outer circle of the main body of men and women who will be most benefited by it. There isn't anything doing in this whole country to-day of greater importance to the real folks—those who raise things and make things—than this great plan to give the plain people a big, broad, practical working basis of what the schoolteachers call "vocational education."

## Contrast With Present System

Up to this time the whole educational scheme of things seems to have been cut to fit the shoulders of the boy whose eye has been steadily fixed on the section post of a college and whose lines have been laid for a career as a doctor, a lawyer, an engineer, a teacher, a scientist or a business specialist of some sort. But this new departure will put the boy who wants to become a farmer or a worker in any of the productive, mechanical industries on the same basis with the youth who intends to become a professional man.

To give the boy and the girl who are destined to raise things and to make things the same educational chance, the same specific and practical equipment in early school years for the work which is before them that is now given, under the present scheme of things, to those who are preparing for professional work, is the aim of the big boost which Uncle Sam is now considering in the shape of the "Davis Bill" in Congress. But the only adequate way in which this proposition can be characterized is to say that it is a government measure for the making of better folks, abler folks, happier folks, and more of them! Folks who will earn more, produce more, live more and enjoy more!

## What the Davis Bill Would Do

First let us get at what this Davis Bill would do if it were passed by Congress and approved by the President:

1. It would establish about three hundred large, well-kept, agricultural high schools—practically one in each congressional district outside of the cities.

2. It would place a branch agricultural experiment station at each one of these agricultural high schools. Each agricultural high school would have approximately twenty-five thousand dollars current expense fund and six thousand dollars for its branch agricultural experiment station. Half of this amount would be supplied by the state and half by the federal government.

3. It would place instruction in mechanical industries, in home economics and in arts and trades in all cities of more than two thousand inhabitants.

4. It would provide a fund with which each normal school would prepare teachers to give instruction in agricultural and mechanical arts and in home economics.

5. It would place control of the administration of this law in the hands of the federal government and charge it with the responsibility of seeing that the law is complied with and that the federal money involved is not used for the teaching of general subjects. In other words, in the agricultural high schools the federal fund will be used exclusively for studies in agriculture and home economics; in city high schools this fund will be used exclusively to prepare teachers to give instruction in agricultural and mechanical arts and in home economics. The active administration of the fund, under the provisions of the Davis Bill, is turned over to the state, and it is provided that each state may have a board for agricultural high schools and also a board for mechanical arts and home economics in city schools and a state board covering the three subjects taught in the normal schools—agricultural and mechanical arts and home economics. Beyond this the activities of the federal departments are practically limited to co-operating with the states and helping them to co-ordinate the normal schools and the secondary schools, with the colleges above them and the elementary schools below them.

## For Those Who Have to Grow Things and Make Things

Look, from a new angle, at what this new educational program will give the plain people who have to grow things and make things and work with their hands. It will move down into the high schools of the country, as well as the city, instruction in agriculture, mechanical arts and home economics—the things which are now out of the reach of the boys and girls in the country schools. Now, if a boy wishes to ground himself in a scientific knowledge of agriculture or mechanics he must leave home and go to the agricultural college or to the technical school; if a girl wishes to understand the theory as well as the practise of the science of home economics, so that she may be a better home maker, a better wife, a better mother, a better housekeeper and a better member of the social life of her community, she must also leave home and go to a school where home economics is taught as a specialty. But how many boys and girls in the country are able to follow their inclinations to the extent of indulging in this comparatively expensive away-from-home education? A mighty small proportion of the whole to say the least! Take your own school, for example; count up the number of boys and girls who have, in the last two years gone away to college or to technical or other schools, and then compare the result with the number of those who have been obliged to "drop out" and go to work. You will be astonished at the jolt which this comparison will give you. And what becomes of those who "drop out"? They have no special equipment or preparation for anything in particular; they are untrained and inefficient from an educational viewpoint, and consequently they immediately seek their own industrial level and have to content themselves with the wages and the rewards of inefficiency and unpreparedness. Instead of being sent out to tackle the problems of life, the struggle of existence, with a good grounding and a fair boost they are weighted down with the handicap of knowing practically nothing about any particular calling or vocation. Inevitably the result is that the ranks of the poorly paid vocations are recruited from those who are obliged to drop out of school between the ages of twelve and eighteen.

## Reaches to the Little Red Schoolhouse

Think what the new order of things will mean to those who would naturally, inevitably, be forced by their own circumstances to join the Army of the Inefficient, the Phalanx of the Unemployed, which now is numbered by the hundreds of thousands. Almost before they have left the elementary grades their training for the manual vocations will be begun; it will reach out to "the little red schoolhouse," it will come to them in their own home communities and will touch their lives while they are still under the home roof on the farm or in the village.

Right in this statement is a point of immense importance which it is easy to miss. The closer the boy is to the actualities of farm life, the easier is it for him to absorb the knowledge of fact and theory, of principle and practise taught him in an agricultural course—and the more elementary that course, the more necessary is it for the boy to be close to the soil where he comes into daily and intimate contact with crop and farm conditions. Having this constant and visual intimacy with the things concerned in his school lessons, he is less than human, less than a boy, if he does not test and fortify the theories and the knowledge received at school by questions and investigation and discussion with the "men folks" at home. The same observation applies to the girl who is taking instruction in home economics at school; the very fact that this instruction reaches her while she is still an inmate of her own home doubles the value of that instruction and makes its absorption far more easy and rapid.

## New Instruction Will Reach Millions Annually

It is estimated that, from its very beginning, this new instruction will reach one hundred thousand farm boys annually, and that it will equip teachers who, in the rural schools, will reach one million, possibly two million, town boys annually. Again through the secondary schools and the lower schools made possible by teachers trained along these vocational lines, it will provide education

in home economics for nearly all the girls in the public and non-public school system. In other words, practically the whole body of boys and girls in the country will have at their hands and at the very doors of their homes an education in how to grow things, how to make things and how to succeed as home makers. Those who are compelled to "drop out" and forego a college course will no longer be unprepared for a profitable vocation; instead, they will have an equipment and a training directly applicable to the calling into which their lines will naturally lead them.

But this new education for folks will not only revise and redirect the whole lower school system to meet the emergencies of those who must stop their school going while in their teens, instead of consulting only the interests of the possible college graduate, but at the same time it will surely increase the number of pupils of the secondary schools well prepared for college and for the higher technical institutions of learning. It will do much more than this; it will increase the actual production of this country by hundreds of millions of dollars, and this means that it will send a wave of stimulation, activity and vigor through the whole body of industrial, business, social and home-making interests.

There was a time when training for the practise of medicine, law, engineering, teaching and other professions was largely a rule-of-thumb, hit-and-miss matter of individual apprenticeship. To-day everybody recognizes that the way to any of these professions lies through schools and colleges, through years of specialized study preceded by a good groundwork of common-school education. In other words, the man who enters a profession must know his business, must know its principles, its laws, its theories, whys and its wherefores. This movement for an education for folks says, in effect, that there is a body of knowledge about agriculture, about the mechanical industries and about home making and home management, big enough, broad enough and vital enough to warrant a ten-million-dollar plan of education for folks—a plan that will build up the plain people so that they will know their business and the natural laws upon which it rests as well as the professional man knows his business, so that when the farm boy drops out of school at seventeen he will be able to start in the practise of farming with a better mental equipment for the work than his father had at the beginning of his struggle.

This will help to drive blundering, haphazard, unscientific and inefficient methods out of agriculture, the mechanical arts and housekeeping. Will it pay? Ten times over right down on the dollars-and-cents basis!

Folks—just plain folks—is the greatest crop we raise in this country, and this plan to immensely increase the quality of that crop will cost the American people only about forty cents per capita more than they are now paying for the privileges and benefits and protection of American citizenship. As we are now paying about twenty-five dollars for each individual on that score already, the additional forty cents will not add to the mortgage on the farm! And it will build up the one natural resource which develops all the other resources—plain folks!

## The Big Thing in Life for a Boy

is to "find himself" before it is too late; to get settled into the line of work for which he has a natural liking and aptitude before he has wasted years in unhappy, futile effort along lines for which he has no taste. Not all farm boys are naturally fitted to become farmers, their gifts and tastes lie strongly in other directions; on the other hand, many city and village boys have strong inclinations and natural abilities leading them in the direction of agriculture. One of the best things about the educational plan embodied in the Davis Bill is that it offers a natural avenue by which the boy may "find himself" before he has left school and get a practical preparation for doing the kind of work in the world which is really to his liking. The different vocational lines make an earlier contact in the schoolroom, and consequently the boy has an earlier opportunity to discover that he is interested, perhaps, in "the other sort of thing"—the thing at variance with his pre-conceived notions and the traditions of his home and family. If a town boy who is comparatively poor

discovers that he has a liking for agriculture—and instances of this kind are becoming increasingly frequent—his course would be to arrange with a farmer to work summers and go to school winters for a few years and then take the course in the agricultural high school. In this way he will learn not only the theory of agriculture from the book standpoint, but will also get a personal contact with it—and all the time he will have, under this educational scheme, the means for a progressive training in both the theory and the practise of his chosen vocation close at hand. If the city boy with country inclinations has well-to-do parents he may continue his course in the high school until half way through and then work on one farm after another for three summers, attending the agricultural high school during the winter. Finally, he will determine whether he wishes to go actively into farming along some special line or become a technician in agricultural science. If the latter, then his course is to pass on up to the agricultural college.

On the other hand, take the case of the country boy who finds that he has a mechanical turn of mind; his course, if he is obliged to support himself, is to find work in a shop for a portion of the time and to attend school for the remainder of the year.

## Big Advantages of the New Educational Plan

Do not overlook another big advantage in the educational plan which is focused in the Davis Bill; it will keep the average boy longer in the secondary school, and therefore it will gradually add to the sum total of the educational output of this country. It is a well-established fact of educational practise that a boy who takes a vocational study in addition to his other studies often, if not generally, finds his burden lightened instead of increased by so doing; the vocational study acts as a foil and a relief and he finds his academic studies more interesting and less of a drag on him because he is also studying the immediately practical thing in which he is spontaneously interested.

Still another important phase of the practical operation of this plan will be the large increase in the number of persons of higher secondary school training, which will in turn immensely increase the number of teachers who are able to redirect the lower school system toward vocational efficiency. It will produce a school course vastly broader than the present traditional course. It will add to the present course, which is admittedly too narrow and literary, all the practical and scientific knowledge which is so rapidly springing from the laboratory and the demonstration farm, from intelligently managed private farms, from the highly organized shop and from the well-kept, well-managed and progressive modern home. It will create a greatly increased demand for the literature of agriculture, of the mechanical arts and industries and of home economics, and stimulate the interest of the whole people—those out of school as well as those in school—in this kind of reading. All this means employment for those who have enjoyed the advantages of this vocational training.

Not only will the ultimate operation of the Davis Bill increase the earning capacity of those who work on farms and in shops, but it will produce more to be divided between labor and capital. Capital will increase its intake—but perhaps not its proportion—while the "plain people" will get more nearly what they earn and will produce much more. Because they will have a greater investment in training, in equipment, in intelligence, these workers will become more conservative, more stable, more careful of their interests and the interests of others. They will be an anchor to the windward which will keep the national situation from breaking loose in times of stress. Uncle Sam certainly knows what he is about in proposing this great educational gift to his people.

It means pleasanter and more productive farms, pleasanter and more productive shops, happier and more comfortable homes. Best of all it means more power to the minds and the elbows of the folks who grow things and make things and are the real folks!

If the Davis Bill carried an appropriation of five times ten million dollars its certain benefits would be worth the price.

You may figure out in dollars the economic gain which this measure will give the country—but You can't put a price on an increase of quality in folks!



# The Best in Life Insurance

The Massachusetts Savings-Bank Insurance and Pension System—By Louis D. Brandeis

**I**F THE system which Massachusetts has recently introduced for enabling the people to provide themselves with life insurance and old-age pensions proves as successful as now seems probable, the readers of FARM AND FIRESIDE may look forward to the time when every American town and village, as well as city, will have its savings bank, and every savings bank will supply also life insurance and old-age pensions.

At present only fourteen of the states have savings banks like those of Massachusetts; and Massachusetts alone has extended the functions of savings banks to the issuing of life insurance and old-age annuities. But the advantages of a system by which the people can obtain absolutely safe life insurance and old-age annuities at a low cost are so great that success of the institution in Massachusetts must be followed by its general adoption elsewhere.

Wherever the people's savings bank has been introduced it has proved itself the greatest of all agencies of thrift, and has taken its rank with church and school as an inculcator of the virtues essential to our civilization. In many communities it is hard now to find a self-respecting person who has not some savings bank account, however small; and demand for savings-bank life insurance and pensions will develop rapidly as the means of providing them are supplied.

Already life insurance is becoming with most people a necessary of life and as much a matter of course as fire insurance. Prudent men normally situated no longer consider whether they shall take it, but how much can they afford and how they can get the most for their money, safety being of course the prime requisite.

The Massachusetts plan rests upon the proposition that a savings bank, if empowered to handle life insurance, which is only a form of co-operative saving, can furnish the insured with the maximum of safety and convenience at the minimum of expense, and besides encourage local initiative.

## Defects of Industrial Life Insurance Sold Under Private Initiative

The circumstances leading to the adoption of savings-bank life insurance and old-age pensions in the Bay State should be briefly related.

The disclosures of mismanagement and extravagance in some of the great life-insurance companies at the time of the investigation of the Armstrong Committee led to nothing so startling as the revelation that the many millions of wage earners of the United States who held policies in the so-called industrial insurance companies paid nearly twice as much for their insurance as did the holders of ordinary life policies. Industrial insurance is simply ordinary life insurance taken in small amounts, the premiums of which are payable weekly and collected at the homes of the insured.

The greater cost of industrial life insurance is due in part to the greater mortality among the working class; but the high cost results most largely from the system employed by the private companies. Solicitation of the business costs money. Collection of premium weekly at the home of the insured costs money. Much business is written that ought never to be undertaken. The very large percentage of lapses, due also in large part to the system pursued, throws a heavy burden of expense upon those who continue to maintain their policies. Through a defective plan in furnishing one of the necessities of civilized life, a special burden has been laid on those members of society least able to bear it.

## A Remedy for Life-Insurance Deficiencies

The remedy which was proposed for this most grievous of all life-insurance wrongs was to authorize savings banks to establish a department of life insurance and old-age annuities. The idea coincided with the original intent of the savings institution as developed in England a century ago. It seemed natural to apply it to the admirably managed and supervised system of savings banks in Massachusetts, whose trustees serve for the most part without pay, whose officers receive only moderate compensation, whose total expense of administration is less on the average than one fourth of one per cent of the total of deposits, whose conduct for many years has been without suspicions of graft or scandal, being actuated rather by the spirit of service than by the spirit of gain.

## A Great Public Movement in Massachusetts

A whirlwind campaign forwarded by a "Massachusetts Savings Insurance League," which was formed to put into practical execution this idea of further appealing to the noblesse oblige of the savings-bank men, resulted in the passage of a permissive act, which was signed by Governor Curtis Guild, Jr., June 26, 1907. Nearly a year after the enactment of this law was necessarily occupied in getting ready the machinery in this pioneer field, for a great deal of actuarial and other work was required, so that it was June 18, 1908, before the insurance department of any savings bank could be opened.

## Conditions of Opening Insurance Departments in Savings Banks

The Massachusetts plan provides, in brief, that any savings bank of the state, by raising a guaranty fund and complying with other safeguards, may open an insurance department. It then becomes legally known as a "savings and insurance" bank. All the operations of the life-insurance department, or insurance "trust," as it may be called, are kept carefully separate from the savings department or savings "trust." The solvency or insolvency of one department is not dependent upon the financial condition of the other department. As a matter of convenience, however, to the community, it is arranged that depositors in the savings bank who are also insured may, if they desire it, have their monthly premiums paid as they fall due, out of the savings account. No employment by the bank of paid solicitors or house-to-house collection of premiums is permitted. The bank may, however, authorize the establishment of agencies in other savings banks, at welfare centers, in manufacturing and mercantile establishments, trade unions, granges and other societies, through any of which applications for policies may be made and to which the monthly premiums may be paid. These agencies will be the active means of bringing savings-bank life insurance and pensions before the people.

The insurance department, like the savings department, is expected to be conducted wholly for the benefit of the community, not for the purpose of gain. All profits above the cost of administration accrue to the insured either in the form of cash dividends or increased insurance. This plan accords with the principles under which savings banks of Massachusetts have operated for ninety-two years, and as a result these banks now hold over seven hundred million dollars of the people's money.

## The Commonwealth Behind the Plan

To secure the stability of every insurance department which may be established, and to place behind it the credit of the commonwealth of Massachusetts, a general guaranty fund has been created, in charge of seven unpaid trustees appointed by the governor of the state. To this fund the banks contribute pro rata according to the insurance business which they do. The state also furnishes and pays for much of the executive machinery needed for determination, instruction and supervision. The technical insurance features of the project are in charge of a state actuary. The supervision of medical examination rests with a state medical director. Massachusetts, in brief, without adopting a scheme of state life insurance, has provided the apparatus needed for giving its wage earners life insurance and old-age pension policies at the lowest possible cost.

If one may argue from the experience Massachusetts has had in the short time that savings-bank insurance has been offered to citizens, it is natural to predict that in most states where savings-bank facilities have been provided the plan will shortly be adopted. Here are some of the accomplishments.

## Determining the Rates for Savings-Bank Insurance

It has been proved, for one thing, that savings banks can sell life insurance and annuities on a plan of monthly payments at relatively low rates. This is of itself something of an achievement. When the newly appointed state actuary, Robertson G. Hunter, came to consider prices at which life insurance could be sold in various communities of the state, he was at once confronted with the fact that if the same gross rate was to be adopted for all parts of the state, he must make the rates high enough to allow for the

high mortality in the textile towns like Fall River, Lawrence and Lowell. If any error was to be made, it was necessary to err on the side of conservatism.

In adopting this basis, however, there was no unfairness. A savings bank in one of the more healthful communities, as in a shoe-manufacturing town or a rural neighborhood, is required, of course, to charge nominally the same rates as the bank in a place where death claims relatively more victims; but the insured are nowhere overcharged, since any profits from operation are divided among them.

In spite of the conservatism of the rate making which renders it probable that considerable dividends will be paid, it has been possible to offer gross rates for insurance and annuity policies that average about twenty-five per cent less than the net rates charged by insurance companies for industrial life insurance.

As in Massachusetts alone over six million dollars a year is paid in premiums on such policies, there is the possibility of saving now two million dollars a year for her wage earners and others of small means. The annuity or old-age pension feature of the new system represents also an incalculable economic advantage, but the actual advantages are much greater than the above figures indicate.

In the first place, the industrial-insurance policies are in the main non-participating, while under the savings-bank policies all profits are distributed among the policy holders, except so far as applied to building up the surplus and guaranty fund.

In the second place, under the industrial-insurance policies, if the insured dies within six months of the date of the policy, the beneficiary gets only a half or a fourth of the face of the policy; while under the savings-bank policies the full amount is paid if the insured should die immediately after delivery of the policy.

In the third place, under the industrial policies, if payments of premiums cease at any time before the policy is three years old, the policy lapses; while there can be no lapse of the savings-bank policy after premiums have been paid six months, the insured receiving a surrender value in cash, or extra dividend, or paid-up insurance.

There are two forms of life-insurance policies—one representing ordinary straight life insurance, the other endowment insurance.

## What Ordinary Life Insurance Costs at the Savings Bank

On the ordinary life policy all premium payments cease at the age of seventy-five.

A lad of seventeen years contracting for such a policy on which five hundred dollars is received at death would pay into the savings bank either directly or through one of its agencies as perhaps through the treasury of the local grange, eighty-one cents each month. The price of the protection increases, of course, if the insurance is taken out later in life. For this five-hundred-dollar policy a person beginning at age twenty-five must pay a dollar a month; with the thirtieth birthday approaching, \$1.15; in his thirty-fifth year, \$1.34; in the fortieth, \$1.58; in the fiftieth, \$2.38; in the sixtieth, \$4.05.

## Prices for Endowment Policies

Endowment policies, through the persistent efforts of life-insurance agents, who like to sell them because they give relatively the largest commissions and through the disposition of many Americans to combine accumulation of a nest egg with protection for the family, are very popular among all classes of society. The state actuary of Massachusetts has accordingly prepared tables for endowment policies which give the insured protection in case of premature death and possession of a lump sum, not to exceed five hundred dollars in a single policy, on reaching the age of sixty or sixty-five. For an endowment policy of five hundred dollars, maturing at the age of sixty-five, a boy of seventeen pays only eighty-eight cents monthly; a person beginning in his twenty-fifth year pays \$1.08; in his thirtieth, \$1.32; in his fortieth, \$1.95; in his fiftieth, \$3.42 for such a policy.

## Value of Annuities Not Yet Recognized in This Country

Then there are annuities—voluntary old-age pensions, enthusiasts like to call them. This is a type of insurance with which most Americans have been unfamiliar up to this time. The principle

is simple enough. You pay a certain amount of money each month, and after a certain age, as after sixty or sixty-five, you begin to draw an annual income, which continues as long as you live. Among the thrifty French this has long been a very popular way to assure the individual of having something to live upon during the years in which most people become economically unproductive.

In this country the ubiquitous life-insurance agent has very properly, from the point of view of his personal interest, preferred to talk other forms of insurance. Because annuities are regarded as comparatively unprofitable to the companies, few American life-insurance companies have ever attempted to push them.

Yet they offer the simplest and most admirable of devices for enabling the individual to provide against dependence in old age—a characteristically American substitute for the compulsory old-age pension. By making a small payment to savings each month, the Massachusetts citizen, man or woman, can secure two hundred dollars annually after the age of sixty or sixty-five. That means practically four dollars a week for the remainder of his life. By having accounts with two banks it would, of course, be possible to arrange for an amount equivalent to eight dollars a week.

Without especial strain the ordinarily thrifty and productive person can thus easily allay the specter of the poorhouse or of existence as a dependent inmate, perhaps unwelcome, in the household of relatives. The problem of the superannuated worker is a pressing one in every country. It applies to the agricultural as well as the manufacturing communities. It led, after twenty-two years of investigation by Parliamentary committees, to the passage of the old-age pension law that has just gone into effect in Great Britain. There is, fortunately, a promise of its being naturally and easily solved in Massachusetts, and thereafter in other states, by the provision for savings-bank annuities.

## Two Forms of Annuity Contracts

Take a few specific examples. Suppose a person is at work with no one dependent upon him. He has no especial need of life insurance, but he does realize fully that in time to come, barring the contingency of untimely death, his earning capacity will be lessened until it ceases to exist. For such a man or woman the simple annuity offers an inexpensive means of securing in old age an income sufficient for maintenance.

An old-age pension policy of two hundred dollars a year for a man, beginning to run at age sixty-five, the payments starting from the twentieth year, is issued at ninety-six cents a month; from the thirtieth year at \$1.62; from the fortieth year at \$3.02. The annuity rates for women are necessarily a little higher, because women outlive us on the average. For the same kind of policies at the ages corresponding to those just mentioned, women pay monthly, \$1.14, \$1.94 and \$3.60.

For annuities that begin to run five years earlier—that is, from the age of sixty—one must naturally pay somewhat more. Men beginning from the twentieth, thirtieth or fortieth year are expected to pay respectively to the savings banks monthly \$1.64, \$2.84 or \$5.58; women at the corresponding ages, \$1.84, \$3.22 and \$6.34.

In taking out old-age pension policies many people would prefer, in event of death prior to the beginning of the benefit, to be able as a result of their saving to leave something to their heirs. An annuity contract has been devised by the Massachusetts state actuary, in accordance with which the total amount of the premiums paid in is repaid to the beneficiary if the insured dies prematurely. The rates for protection of this kind are necessarily somewhat higher than those for the simplest form of annuity, but still very reasonable.

## Combination of Life Insurance and Old-Age Pension

One of the best features of the Massachusetts plan appears in the possibility of a combination of life insurance up to the age of sixty or sixty-five and of an old-age pension after that age. This gives the thrifty citizen protection in two of the most important departments of insurance; insurance against accidents, sickness and non-employment has to be obtained elsewhere, if at all.

The cost, furthermore, for this double protection is not such as to daunt any



moderately well-paid worker, who understands that life insurance and provision for support in old age are among the necessities of civilized existence; that they are an essential part of the living wage, and that no one who neglects them can fairly be said to be paying his way.

For this insurance-annuity combination a youth in his eighteenth year pays \$1.03 a month for five hundred dollars up to age sixty-five and two hundred dollars a year thereafter as long as he lives. In the twenty-fifth year the cost is \$1.33; in the thirty-fifth, \$1.98; in the fortieth, \$2.51.

Not only are savings-bank policies in Massachusetts cheaper than industrial life-insurance policies sold by the insurance companies, but the "surrender values" are more attractive. Each policy has a definite surrender value after premiums have been paid for six months. No other industrial policy begins so soon to be worth something in case of lapse.

Take the case of a person who becomes insured at a savings bank in his thirtieth year with an ordinary life-insurance policy. If for any reason he is forced to give up his policy at the end of the first year, he gets back twenty per cent of the premiums contributed; after five years, thirty-five per cent; after ten years, forty-two per cent; fifteen years, forty-seven per cent; twenty years, fifty per cent.

One who arranges with the savings bank for endowment insurance in say his fortieth year, receives, in event of surrender of the policy at the end of the first year, thirty per cent; after five years, fifty-one per cent; ten years, fifty-eight per cent; fifteen years, sixty-four per cent; twenty years, seventy-two per cent. Such figures mean that everything comes back which legitimately can.

#### Experience is Already Disproving the Objections

The objections urged against the savings insurance scheme have generally represented some variation on the theme that it is pretty in theory, but that it won't work, in practice, because people must be teased and coaxed into doing their duty by their dependents and themselves. One has even heard of its being axiomatic in life-insurance offices that a man who voluntarily applies for insurance is probably a bad risk.

Practical experience, however, seems already to be proving that this notion of the essential weakness of human nature as regards foresight has been greatly exaggerated. Once the facilities have been offered for securing the benefits of insurance at actual cost, most normally constituted people are ready to do their part. It is particularly true that in a state like Massachusetts, representing very diversified industries and pursuits, society is conspicuously divided up into groups and vocational organizations, and that when the leaders of one of these groups have announced that such and such a movement is a good one, the constituent members are very ready to meet their obligations toward it. The enthusiastic commendation of the Massachusetts labor organizations, which are now beginning to establish agencies with provision for the reception of insurance premiums simultaneously with the union dues, enters largely into the success that is being achieved. Religious and philanthropic organizations, like the Young Men's Christian Association, or some of the social settlements in Boston, by co-operating in the work bring in a large and enthusiastic following. The state granges were early interested in the plan.

#### Actual Accomplishments at the Outset of Operation

Just how a great proportion of the population will avail themselves of the opportunities for life insurance and pension policies issued by the savings banks cannot be guessed as yet. If practically everybody does come in, then some of the most serious problems of society will have been solved co-operatively rather than socialistically. If only a moderate percentage responds to the new incentive to thrift much good will still be done, though the problem of the indigent aged will then continue to be pressing and perhaps to demand a settlement more in accordance with the theory of state socialism. From the evidence in hand after the plan has been in working order for only a few months—and it is still to be started in some centers, where it will be put to its most efficient test—one can be very hopeful that the appeal to the spirit of self help and individual initiative may be heard to a practically universal extent. The two savings banks, at Whitman and Brockton, which have opened insurance departments, and whose operations now virtually cover the state, since they are represented by more than fifty agencies, find a steady and increasing stream of insurance business flowing to them. In the Regal Shoe Factory, which first opened an agency, over fifty per cent of all employees have taken out some form of savings-insurance policy.

## You will be responsible AT HARVEST TIME If things don't go right

**R**IGHT then at harvest time are you to know success or failure for the year.

Every hour of rapid, smooth, uninterrupted work will pile up your reward.

Every hour of delay, of slow, hard going, will decrease that reward, fill you with anxiety and rob you of profits that you have justly expected and built on.

You will have enough responsibility at harvest time without having to think of your equipment, upon which the success of the year will largely depend.

Get that heaviest part of your responsibility off your shoulders now.

Go over your equipment before the very busy season starts. Decide what you will need to do the work right.

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And you want time for choosing harvesting machines. There is too much at stake to allow yourself to be pushed into a hurried decision.

For it is not only a matter of choosing efficient, dependable machines, but the machines that are particularly adapted to your needs, the machines that you know you can do the most with under your particular conditions. For this reason the best start you can make in your investigations is to examine the International line. Because hundreds of thousands of farmers in all lands have proved the efficiency of every one of these machines, you can't go astray on quality. And, besides, you have so wide a choice that you are sure to find the machine that just suits your ideas and your requirements in every way under one of these names:

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Choose one of these and be sure—sure of top-notch efficiency, simplicity, dependableness, durability.

Choose one of these and be sure of the most for your money, the biggest returns on your investment, the most profit from the crops you harvest.

Choose one of these now and feel secure in your harvest expectations during the coming months of rush and hard work.

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C. BUTLER

In the factory of the Commonwealth Shoe and Leather Company, which closely followed the example of the Regal, a similarly satisfactory showing is being made, and the more recent test at the Ludlow Manufacturing Company is likewise satisfactory. From other manufacturing centers encouraging reports are received. The element of time is, of course, necessary in getting people educated to a new departure of this kind. It is found that there is no initial rush for insurance policies. Both men and women workers listen to a talk on the advantages of the plan, and perhaps receive some literature, which they take home to talk over with the family. In a day or two three or four of them make application. Then a little later several more ask to be insured. The

employees of the establishment meantime are noted to be talking the subject over quietly among themselves, some of them perhaps doing a bit of figuring. Gradually the desire for the benefit of the protection offered by the savings bank permeates the whole shop. That is the spirit in which the principle of savings insurance is progressing in Massachusetts and which makes this movement so promising.

#### Using Ashes With Manure

I ENJOYED reading Mr. Chas. A. Umselle's article on the manure spreader. Too much can scarcely be said in favor of this valuable and very necessary implement, and yet, good as it is, it can be put to bad use, and this is what any

farmer does when he fills his manure spreader half full of manure and the remainder with hard-wood ashes. Ashes should never be mixed with manure or superphosphate.

I would not exchange one half load of barn-yard manure for one half load of any ashes or lime. The careful saving and applying of barn-yard manure means much to the farmer of to-day, and yet I have seen good farmers use wood ashes and lime freely on manure, the effect of which is a serious loss in ammonia, while nothing is added to the lime or ashes.

When applying lime or wood ashes with a manure spreader I use the remains of some trash pile, leaves or straw.

Tennessee.

O. P. R. Fox.



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**American Fork & Hoe Co.**  
Cleveland, Ohio

## Gardening

By T. Greiner

### Best Marketable Strawberry

For this locality I know of nothing better at this time than the Fairfield strawberry for first early, Brandywine for general crop, and Gandy for late. But in most localities the prospective planter will do well to see the most successful growers in his own neighborhood and inquire about varieties. I have an inquiry from Maryland. In some of the southern sections Brandywine is not suitable for the local soil and market conditions, but some of your neighbors will probably know better what particular variety there offers the best chances of success. Go and ask them.

### Sowing Celery Seed Early

Perhaps some of the readers of FARM AND FIRESIDE may like to try my way of starting celery seed about two weeks earlier than it would do to plant it outside.

I fill a pan about an inch deep with sand, sow celery seed thickly on top, and press it down with my hands, but do not cover it. I moisten thoroughly, and keep it in a moderately warm room, keeping the sand moist until the seeds show signs of sprouting, which will be in about ten days. Then I stir the sand and seed together, and sow it in rows (rather thinly) in open ground, in good, well-prepared soil.

The plants come up quickly and are not so crowded as when sown without the sand.

A. F. HOPKINS.

### Raising Onion Sets

Some instructions for raising onion sets from seed, how to sow seed, harvest and market the crop, etc., are desired by a Nebraska reader. He has a light sandy soil, very productive, on which onions are doing well.

For onion sets we usually select a piece of sandy soil of fair fertility and reasonably free from weeds. The rest is easy. Just sow Silverskin (White Portugal) onion seed for white, or Yellow Strasburg (Yellow Dutch) or even Danvers, for yellow sets, at the rate of forty to sixty pounds of seed to the acre, making the drills one foot apart. Use the hand wheel hoe freely, which is about all the labor that ought to be necessary.

When the tops begin to die down, showing approaching maturity, the little bulbs may be taken up by running a trowel underneath the row, and thrown into a sieve to clean them from sand and soil. Put them on a dry loft or on sieves to cure, and when dry, store them in shallow and open boxes in a dry and cool place.

During the winter they should be kept in a dry room and either a little above freezing or below the freezing point, but well covered to protect them from repeated freezing and thawing. The main point is to keep them dry.

Send them to market in early spring. In our local markets we find but few white sets, mostly yellow ones, and hardly ever red ones (grown from Early Red onion seed). The famous Philadelphia white onion set is grown from Silverskin.

### Large Onion Yields

Oregon reader says he has been unable to reach even one half of the onion yields mentioned by me in an earlier issue, although he claims he has the best land for onion growing in the state. He wonders what fertilizer I use.

I once saw on a tract of muck land (sandy muck) near Mount Morris, New York, four or five acres in Danvers' Yellow onions grown from seed sown in open ground, on which, at time of harvesting, I estimated the crop to reach fully one thousand bushels an acre. I have repeatedly seen smaller patches of various kinds (Red Wethersfield, Prizetaker, Yellow Globe, etc.) that yielded at the rate of one thousand bushels or near that an acre. Such yields, however, are rare and due just as much to the original strength and fertile condition of the soil and generally favorable conditions as to manure or fertilizer applications. I know of many pieces of ground where I could easily reach the one-thousand-bushel-an-acre rate of yield, without using a bit of manure or fertilizer, provided I could grow the Prizetaker or Gibraltar onions under the new transplanting system.

If our Oregon friend will raise plants of these large Spanish varieties under glass, so as to have them ready for transplanting in early spring, then give his beaver-dam land an ordinary good ma-

nuring, or apply an ordinary dose of good complete fertilizer (say formula 3-8-10) or a corresponding quantity of standard chemicals—dissolved rock phosphate (five hundred pounds to the acre), muriate of potash (one hundred and fifty pounds) and nitrate of soda (one hundred and fifty pounds)—then set good plants of the onion varieties mentioned in rows fourteen to sixteen inches apart and three to four inches apart in the rows. I have no doubt he could easily raise twelve to fifteen hundred bushels an acre.

### The Lesson of the Drought

In speaking of the peculiarities of last season, Mr. Cornell, president (now ex-) of the New York State Fruit Growers' Association, mentioned the drought of last season as one of the most severe in the history of Hudson River Valley. "Since May 30th," he said, "we have had no rain heavy enough to soak more than a few inches down into the ground." And yet Mr. Cornell is able to report a fairly productive season. Thorough cultivation and fertilization overcame the drought effects.

I do not remember ever having seen less rainfall in this vicinity than we had during the latter part of summer and fall of 1908, and even up to this date. Cisterns and wells were dry in many parts of the country, and some are not well filled yet. We have largely had to depend on creek, river and hydrant water for rough purposes, the cistern being entirely dry most of the time.

Yet what magnificent garden crops we had all season long, nevertheless—and all without artificial water applications! We had as fine and thrifty vines (cucumber, melon, squash, pumpkin) as we ever had, and melons, etc., without end to the end of the season. We had celery such as I never grew before; onions of the usual large size, and all sorts of green things galore. This is a rather encouraging experience. It proves us to be master of the situation even in an unfavorable season.

The weapons with which we so successfully fight the drought are already mentioned by President Cornell—cultivation and fertilization.

### Destroying Chickweed

Mrs. H. T., of Merchantville, New Jersey, asks me what will destroy chickweed. That is something I would very much like to know myself. Some of my garden patches are overrun with it, and it is very liable to take full possession of every foot of land on the place, no matter how carefully we may manage. It is a terror in patches of close-planted vegetables, especially onions, carrots and similar things, and the only thing I know to do for it is to keep it carefully and closely cultivated and pulled out.

We can manage it easily enough between the rows of such plants by keeping hand wheel hoes and hand hoes moving, but the rows themselves must be attended to with the fingers or finger weedeers.

Spraying with copperas solutions, which will clean out mustard, ragweed, dandelions and a few other weeds, seems to have but little effect on chickweed.

On the other hand, this weed gives us but little trouble in wide-planted crops, especially such as cover the ground with a heavy mat of foliage. We can take care of the chickweed easily in corn, potatoes, tomatoes, etc., also among bush fruits, such as currants, blackberries, raspberries and gooseberries. Neither do we fear it in the celery patch, among early peas, or such quick-growing vegetables as radishes or lettuce. High cultivation is the key to success. We must be up and doing. Constant stirring of the soil, planting either quick-growing crops in quick succession, or coarser crops which allow long-continued and thorough cultivation, will do it.

I would not plant strawberries on soil infested with chickweed, however. Yet last season I had a patch of the late Gandy, the plants of which were almost entirely hidden under a tremendous growth of chickweeds during the fore part of June. Hot and dry weather came on and ripened the chickweed, perhaps prematurely—and the strawberry vines came up smiling again with bloom and fruit, while the dried remains of the chickweed acted as a mulch. But I am afraid of the next generation of chickweed on the same patch.

Heavy mulching with any kind of coarse litter is liable to choke out the chickweed for the time being.

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# Fruit Growing

By Samuel B. Green

## The Peter Apple

W. S. C., Wykoff, Minnesota—The Peter apple is just as good in tree and fruit as the Wealthy, and I think probably will keep a little longer. Mr. Gideon, the originator of both varieties, was of the opinion. I understand that the reason why the Minnesota Horticultural Society has failed to recommend the Peter is that it is so nearly like the Wealthy as to be with great difficulty distinguished from it. It is a very fine apple, and probably as good, if not the best of anything Mr. Gideon produced.

## Budding Peach Trees

W. H. F., Stanley, Kentucky—I have never had any experience in budding peach trees in the spring. I know, however, that they can be grafted in the spring in the same manner that we graft plum stocks, that is, at the surface of the ground, and cover the wound with soil. I see no reason why we should not be able to bud them. To do this, I should cut the scions some time before I wanted to use them, and hold them, buried in an ice house or kept in a refrigerator, until the bark slips easily on the stocks. I am inclined to think this would work.

## The Homer Cherry

J. J., Atlantic, Iowa—What is known as the Homer cherry is much like the Early Richmond, but perhaps not quite as good. Its fruit buds, however, are harder than those of the Early Richmond, Montmorency and similar varieties. I don't know where this variety came from, but have been told that it was brought into southeastern Minnesota by some German. It has been grown at Homer, Minnesota, and hence its name. It is not generally cultivated in Minnesota, but is grown at a considerable profit in southeastern Minnesota, along the Mississippi River. There are no very large orchards in bearing, but there are a number of parties that have several acres. It has proved very profitable.

## Post Timber

R. H. T., Auburn, New York—The Osage orange and catalpa compare very well with locust as fence posts. The seed of each of these may be purchased of the larger seed dealers. In the case of catalpa, however, it is quite common to have the form known as catalpa bignonioides mixed with that of catalpa speciosa, which is the best. I think you will find the Osage orange a little too tender for best results at Auburn, New York. It will, however, make a fairly good hedge in your section. I would be a little afraid to plant it on a large scale for post timber, and prefer the locust or catalpa. I am inclined to think that if the locust does well in your section it is about as good fence-post timber as any you can get.

## Smudging to Protect From Frosts

R. F. T., Olympia, Washington—It is very true that orchards may be protected from frosts to some extent by the use of small stoves and smudges. The smudges work very well when there is a slight breeze and when the air is not too clear. When there is no breeze at all, the smoke goes straight up and does not spread out over the ground, and on clear nights there is more trouble in this way than when the nights are somewhat foggy. The material generally used for making smudges is a mixture of chopped straw or shavings, coal tar and crude oil, and sometimes resin is used in the same way. In California it is customary to protect from frosts by the use of material of this kind. Little perforated sheet-iron vessels or stoves, in which there is a supply of this material, are set about the orchard, and when there is danger of frosts these stoves are lighted. About twenty-five of these little stoves are used for each acre. Another way is to build a fire on a protected stone boat, over which straw and coal are placed from time to time. This stone boat is then drawn through the orchard, leaving behind it a trail of smoke.

In addition to protecting orchards in the methods here described, I think one of the most satisfactory ways of doing so is to spray the trees thoroughly several times on frosty nights. Treated in this way, the water acts as a protection to the flowers or fruit, both by covering them with ice and by giving off heat, which aids in the raising of the temperature about the trees.

## The Beta Grape From Cuttings

J. L. T., Minneota, Minnesota—I should prefer to make the Beta grape cuttings this winter, provided I could do it on mild days when the frost was out of the wood. Beta is such a hardy variety that the chances are the wood is not yet injured, and I think will not be injured even in Minnesota. The trimmings you speak of that were made December 1st and then left on the ground are probably too much dried out to grow, but you can tell about this by trying them. If they are dried out so that the wood is shriveled, then they should not be used. If, however, they have been covered with snow, it is quite likely that they can be safely used for cuttings. If you feel any doubt about it you can send me a few pieces by mail, and I will let you know promptly in regard to them. The Beta grape is hardy enough so that it is pretty certain to come through any Minnesota winter in good condition.

## Blackberry Growing

Mrs. E. C., Paw Paw, Michigan—Blackberries generally do best on rich, porous soil. Some of the best blackberry crops I know of are raised on bottoms where the soil is somewhat mucky. I think this is largely due to the fact that in such places the crop does not suffer so much from lack of water as it does on the sandy land, which generally dries out badly about the time the crop is ripening. On this account you will have to take special precautions to retain moisture if you plant on sandy land; otherwise, the berries will be very small and perhaps not worth picking in dry seasons.

Blackberries should be planted at least four feet apart in rows eight feet apart. Planted at this distance there is a good chance to get at the plants and pick the fruit; when put much closer this is a difficult matter. The sets may be put out in autumn or spring. I generally prefer autumn planting, but have also had excellent success with planting in the spring. On sandy land to such as you refer I am inclined to think it will be necessary for you to mulch the plants somewhat, in order to retain moisture. I would suggest that you cultivate the plants up to the middle of June and then mulch the land several inches deep with anything that can be satisfactorily used for this purpose.

I do not know what to say as to varieties. Probably the Snyder is the most satisfactory variety generally grown, but some of our best growers are much pleased with Eldorado. On my own grounds I get the best results from the Ancient Britain.

## Cranberry Growing

T. T. W., Farwell, Michigan—In raising cranberries the best result has come when the vines were grown upon bog land where the drainage and flowage were controlled and the water could be drawn down to a distance of at least one foot below the surface of the bog. Clean, sharp sand is also an important factor in the cranberry bog.

It is customary to scalp the bog, taking off in this way all the sod and roots and leaving the black muck and peat, which should be covered about three inches deep with sand. Some growers find that even after the plants are well started the annual application of about one half inch of sand is quite an advantage. On the other hand, there are growers that make a success of raising cranberries without the sand, but there can be no question as to the advantages of clean sand for this purpose.

The sets are the stems of the vines, which are mowed off and planted out one or two cuttings in a place about eighteen inches apart each way, putting the cuttings about four inches in the ground. Another way of planting that is common in Wisconsin is to run the vines through a hay cutter, which cuts them up into pieces about three inches long, and these are sown broadcast over the bog and dragged in with a slant-tooth drag, after which the water is raised to moisten them, and they soon start into growth.

I do not know the nearest good supply of cranberry vines for you to get, but would suggest that you write to Prof. L. R. Taft, superintendent of your Farmers' Institute at Lansing, Michigan, who is well acquainted with the horticultural conditions in Michigan, and can probably help you in this matter.

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## Gardening---Its Artistic Phase

SHALL true progress be accredited to any pursuit that does not smack of the laws of esthetics? Prune out or neglect the beautiful in life and we have only existence. Cite a man or woman who is progressive and we find one who loves the beauties characteristic of his or her occupation. Every gardener is an artist—a good one or a poor one. The poor gardener works as hard, if not harder, than the one who maps out and does his work with precision. The good gardener improves the gray matter of his brain by thinking ahead of his steps; the poor one looks back upon his random furrows with vague feelings of dissatisfaction—a subtle sense that nothing is done exactly right.

As the color artist knows where to lay on a lighter or deeper hue to bring out the perspective, so the garden artist knows the spots where to insert the various seeds that shall make the whole tract abound with the fulness of fruit and foliage. He knows what scope of fallow ground has been depleted of certain plant-sustaining elements because of his knowledge of the nature of the crop which grew upon it the preceding year. He touches every spot with his seed brush in a manner that will make his summer landscape beam with richness and beauty.

The tools of the gardener are simple, few and inexpensive. I am not saying this in the especial interest of the manufacturers of garden tools; the prime interest is in the reader who may not find his garden work pleasurable and profitable. No person who has a quarter acre or more of garden can afford to do without a drill for radish, lettuce, beet, onion, spinach. Where it requires several hours each day for several days to plant so large a garden without a drill, it can be done far more satisfactorily with one in a few hours.

Wheel hoes are the copartners of the garden drill. They are made with single or double wheels to suit the taste of the user. Double wheel hoes straddle the row. There is no other device that can follow so well those tiny dreams of rows reminding one of so many gossamer threads spanning the garden of a dewy morning. It does its work, and that well. It stirs every inch of surface soil, throwing it slightly away from the baby plants, and produces that dust mulch so effectively used for the conservation of moisture in "flat" culture. One can tend almost the whole family garden before breakfast with a wheel hoe, and the result is a pleasure, saying nothing of the valuable method of culture. Whoever adopts this method of gardening is master—master of weeds, master of method, master of the whole situation. Before the cycle of another week he becomes anxious to get into that garden again. Reversing his hoes, he "thrushes" them along leisurely, intercepts the growth of menacing weeds and throws the soil

gently toward his plants, which by that time have grown to vigorous youngsters. The uses of the wheel hoe, with its various attachments, will readily occur to any one who is energetic enough to buy one. With the use of the vine guards bunch beans even may be tended and "laid by."

But how are those straight, dream-like rows to be obtained? With a garden line costing ten or fifteen cents. Staging of any size or length may be had of almost any general store. Two smooth stakes, each two and one half or three feet in length, graduated to two-inch and one-foot scales, attached to the line make a complete laying-off guide. With the drill marker down and the first row sown by the line, four or five more consecutive rows may be drilled before resetting to correct any slight bends that might be developing in the rows. It takes no more time to drill a straight row than it does a crooked one. Straight rows are more easily tended and there will be a space gain sufficient for several additional rows at the finishing, a clear gain. When the drilling for the day is over the line should be wound up and placed in dry quarters to await subsequent service.

With a plow for furrowing and opening middles, two common hoes of different widths for emergencies, a trowel or two and some weeders, the gardener's outfit is nearly complete. Twelve to fifteen dollars will buy it—an A 1 investment for the fellow who means to use and take care of it.

It has pleased God to create things symmetrical and beautiful. All life that He has created, to my mind, tends always toward a higher ideal through selection and culture. Aside from the virtue of economy and the execution of methods producing abundant results, there should dwell within the heart of the tiller the satisfaction of having rendered service beautiful.

Turn the soil, mellow it, let in the air, Stir it and free the dark mold; Open the furrows with deftness and care, Lay in the sleep-elves of gold; Fold the earth over their moist, loamy bed, Firm it down gently and true— Warm them, oh! Sunshine, wake each sleepy head, Feed them, oh! Silvery Dew.

Long did they lay on the dark attic shelves, Back from the dampness and cold, Housed in the shelter of other sleep-elves, Waiting till Winter grew old; Open the furrows, make each tiny bed, Fold the earth over them true— Warm them, oh! Sunshine, wake each sleepy head, Feed them, oh! Silvery Dew. —LYNAS CLIDE SEAL.

## Points on Beautifying the Home Grounds

THE trees and plants surrounding the house are analogous to the frame of a picture and should be so arranged as to give a good background to the buildings and help to present a natural view of the place.

The soil in which the trees are to be planted is a very important consideration. If the soil is too sandy and gravelly, so as to be deficient in plant food, good success with trees will be hindered unless the soil be well fertilized. On the other hand, the soil may be too heavy; but this condition can be overcome somewhat by the proper application of stable manures.

A good loamy soil is conceded to be the best for trees and ornamentals, and in some cases it would pay to haul this kind of soil to start the trees in.

The size of the hole to dig for the trees depends on the size of the plant. However, one rule can be given: Be sure to dig the hole large enough to accommodate all the roots without crowding them. Before selecting your trees, take a drive through the neighborhood to see what trees and plants are already growing with success in the yards of your neighbors; also write to your experiment station and get its list. From the two sources you can make a list of the ones that would suit your site best. Now you can go to your nursery catalogue and order your trees and plants with a feeling of assurance that they will grow if you give them the proper care and attention.

In ordering trees, do not select those that are too large, because it has been found that the best success has been secured with smaller trees.

All plants, to insure the best success, should be transplanted during the dormant

season, and while they can be set out in the fall or winter, spring planting is preferable.

In transplanting, do not place the trees too close together or where they will obstruct the front view of the house. Plant shrubs and ornamentals in front of the trees, also near the house to soften the outlines, and in the sharp angles made by the walks or beds. To prevent shading of shrubs and ornamentals they should not be planted too close to the trees. When flowers are planted they should be placed in front of the shrubs, to finish the background. It is not a good plan to cut up the lawn in front of the house by trees or shrubs; a few small groups of shrubs planted in the proper places will break the monotonous outlines of the lawn.

After planting the plants they should receive good care and attention. Plenty of water must be supplied to them either naturally or artificially. The soil should never be allowed to become dry. The time to irrigate can be determined by examining the soil. If the soil around the plants cracks open too much after irrigating, the cracks should be closed by filling with soil or tamping it down. This should be done until the trees or plants are established.

Pruning the trees and shrubs should be practised only when necessary. Plants should be pruned, to give them form, to remove extra growth and dead branches. The natural form of the trees, shrubs and ornamentals should be preserved as much as possible. Limbs removed should be cut off close to the trunk to insure quick healing of the wound.—J. E. MUNDALL in New Mexico College Press Bulletin.

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## The Newest About Fruits

It is a wealth of new points of practical information that any one with eyes to see and ears to hear may gather at some of these latter-day fruit growers' meetings. While I write this I am preparing to go to Rochester, New York, to attend the meeting of the Western New York Horticultural Society, and I expect to be so loaded up with fruit matters when I come back that I shall be ready to talk and write fruit and fruit growing on slightest provocation. The meeting in Medina, in this county, about three weeks ago was a most interesting and prolific affair—prolific of information and points of experience, I mean—and I cannot forbear scattering some of my gleanings on that occasion over a wider field.

### The Best Fertilizer

It is an old question, but always comes up anew, "Which is the best fertilizer for fruit trees, or for peaches or apples?" And there isn't an expert wise enough to answer it unqualifiedly and definitely. This is because it cannot be done. So much depends on given conditions! The answer found on the tables of the fruit exhibit at the Medina meeting was certainly significant. In the fruit exhibit made by the New York State Experiment Station, Geneva, were shown plates of apples as grown on unmanured trees, on trees fed with stable manure, on trees fertilized with various standard chemicals and with various combinations of chemicals, but it would have required an uncommonly sharp eye, or a magnifying glass of considerable power, or an unusual amount of imagination, to discover striking and characteristic differences.

These experiments have been carried on for many years without ever showing marked advantages of the manure applications. Tillage in this connection has seemed to be of much greater consequence than manure. In short, the strong loams as we find them in Geneva, in Niagara County and in many other sections are so well supplied with plant food, that in growing apples, pears, plums and cherries we may well save most of the expense for purchased plant foods, and that there is an easy chance of wasting money in making liberal or indiscriminate applications of such plant foods. Why buy fertilizers when we can grow just as good fruit without?

### For Peaches

A sandy soil, however, is preferred for peaches, and the application of plant foods is often very necessary and essential for best results. Unfortunately, we cannot have these fruits on the exhibition tables at this time to tell their own story, as the apples from Geneva did. We have to rely on the experience of growers and on their word for it.

First of all, we want good growth in peach trees. It takes nitrogen, which in sandy soils is often lacking. But if the soil is well supplied with vegetable fiber, as it should be, the trees will probably find nitrogen enough. Mr. C. E. Bassett, an extensive grower of peaches in Michigan, who gave full details of peach growing at this meeting, says we must watch the trees. If they make strong growth, all right. If not, nitrogen must be supplied, either by applications of manures or by the use of clover, vetch, etc. He thinks much of vetch, just as I do.

Other applications are made as the trees seem to require them. Potash is most likely what is needed. Wood ashes supply this need very nicely. So does muriate of potash. But watch the tree and note what it needs and the effect of applications. Why buy ready-mixed fertilizers? Buy and apply what the tree needs. That is the best fertilizer.

### The Need of Tillage

Prof. Hedrick of the state experiment station at Geneva again makes a strong plea for tillage as opposed to the sod or sod-mulch method of growing apples. On the basis of actual figures obtained in five or more years of experimenting, he shows an increase of fifty-four per cent in the net returns of the orchard as the result of tillage over sod. The cost of caring for an acre of apple orchard under the sod method was \$17.92; under tillage, \$24.47 and the income \$71.52 and \$110.43 respectively. The apples in the exhibit, shown as the result from both methods, seem to bear out Professor Hedrick's statements. The color is better in sod. The specimens are of uniformly medium or below medium size, but the color is the "hectic flush of disease or decrepitude," and the fruit from tilled plots is juicier and of better flavor. The trees also make a better and more uniform annual growth of wood, with larger and

healthier foliage, the leaves adhering to the trees much longer than on those in sod. Altogether it is not the cheapest method which gives the highest profits.

### For the Peach-Tree Borer

Mr. Wadham gives coal tar as by far the best remedy for the peach-tree borer. There is no risk in applying it. He has never injured a tree by using it either for the borer or as a covering for tree wounds, for which purpose it seems well adapted. He puts it on with an old paint brush in May or June. It repels the adult insect and prevents it from depositing its eggs, but does not kill borers already in the tree. These must be cut out. Professor Slingerland, our bug expert, says he finds coal tar the best of the thirty-five remedies he has tried.

### Brown Rot

The self-boiled lime-sulphur wash, besides being good for scale, etc., has also been found good for brown rot on peaches and cherries. It can be applied as a summer wash for this as well as for leaf spots and other leaf diseases of cherries, etc. It is difficult to make the mixture stick to plums, as they are smooth, and the remedy is less effective on that fruit than on peaches.

### Leaf Curl of the Peach

Whatever remedy is applied, whether lime-sulphur or Bordeaux, the treatment for leaf curl will only be found effective if made early enough. Even the simple solution of copper sulphate will control the disease. Always make the application before the buds break.

### Summer Spray

The formula for making the self-boiled lime-sulphur spray for summer use is as follows: Fifteen pounds of sulphur and ten pounds of lime. Slake slowly in cold water, to make a thick paste, then dilute as soon as slaked to one barrel.

### For Shot-Hole Borer

Mr. Case, now president of the association, says the shot-hole borer is easy to kill. He has used the following wash: Twenty pounds of caustic potash, twenty pounds of whale-oil soap and sixty gallons of water boiled together one or two hours, so that the potash eats up the soap. Apply in June with a long-handled brush. Doctor Felt says prevention is better than cure. Clean out all dead wood and dead and injured trees.

### Spread of Apple Scab

Professor Whetzel says the apple scab seems to be carried over on the old dead leaves, and the spores are distributed in the spring. The wind carries these spores up, and the young leaves are first affected. This happens when the buds are just bursting, and the infection spreads most during rains. We must make our applications before it rains, just when the first leaves appear, and two more later on. The indications are that the self-boiled lime-sulphur mixture as a summer application will prevent scab. If we make the lime-sulphur application as late as we can make it for blister mite, and have it effective, we probably catch the first infection of the scab. Our information on this point, however, is as yet somewhat vague.

### Collar Rot

The following treatment is recommended for collar rot by Professor Whetzel. Treat it as you would canker. Examine the trees several times during the season for dead spots. If you find such, cut them away, always cutting around into the healthy bark. Then wash with a one-per-cent solution of corrosive sublimate, and afterwards apply paints or coal tar.

### Peach Yellows

Although the real character and cause of the peach yellows have not yet been discovered, the disease is not feared as much as it used to be. Little peaches, another disease, is really more destructive than the yellows. The treatment for both is about the same. Take out all diseased trees and replant with healthy ones. It is perfectly safe to do it. Cotton-seed meal is one of the best things to feed young peach trees to stimulate growth.

T. GREINER.

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# Live Stock and Dairy

## The Making of Baby Beef

IN THE making of baby beef there are certain fundamental principles that must be carefully considered before we can place the business on a sound and profit-paying basis. It is one thing to tell how to make baby beef and quite another thing to explain how it can be done at a profit. It will be my purpose to speak from the standpoint of making a profit from the business rather than to tell how to grow and fatten a carload of market toppers without regard to the cost of feeding and breeding them.

Among the fundamental principles may be named the following:

1. A man must work under favorable conditions to conduct this specialty in its fullest possible development.

2. It is a specialty that calls for qualified judgment on the part of the man, as well as a thorough experience in the feeding and management of beef animals.

3. The owner must have feeders of the true beef type and be certain they descended from animals possessing early maturing qualities.

4. He must have a herd of cows that are capable of producing a profit at the pail.

5. He must grow an abundance of the very best quality of feed for his calves, for the young animals will not be able to consume so much rough fodder and coarse food as the two and three year olds, and while older cattle may be taken in thin flesh and made ready for market by from four to eight months of proper feeding, it is much different with the calf. To make beef of the yearling, it must be kept fat all of the time from calfhood to maturity.

### The Equipment

The man who contemplates making baby beef must have a good, warm place for his cattle and a well-lighted, well-ventilated and well-sunshined stable for his calves. He must have a farm that will grow such foods as corn, oats, alfalfa and clover, and a silo to provide succulent food during the time when other succulent foods are not available. He will also need to have a pasture that will afford an abundance of rich, luxuriant grazing at all times during the pasture season, or else practise a system of soiling and provide yards for feeding when the weather is warm. In either case there should be a ration of grain food fed all the year, for the calf fat must never be lost, and while feeding for growth he must also feed so that the young animal will lay on meat rapidly.

### Securing Profitable Feeders

Providing a man could always find suitable feeders at just the time they were needed, it might prove more profitable for him to buy them than to maintain a cow herd, but the difficulty in finding thrifty, well-developed calves makes it necessary that he breed them on his own farm and have charge of their early feeding. In the cow herd the first requisite is that they bring large, thrifty, well-developed calves of the true beef type, and second, that they be capable of producing a fair amount of good milk in the dairy.

Where are we to find cows that possess both of these qualities? My advice would be to buy the very best herd of Milking Shorthorn cows that can be found at a reasonable price, for these cows will bring good, vigorous calves and give a fair amount of good-quality milk. Next I would buy one of the best Polled Angus bulls that could be found at a reasonable price. I would want a registered animal and one that descended from some line of breeding that possessed early maturing qualities in a marked degree. I would take him home and cross him with my Milking Shorthorn cows, and I would produce a bunch of calves that would make ideal feeders.

I would fatten both heifers and steers and not keep any of the cross-bred animals for use in the herd, for the first maturing is the most uniform and valuable. The cross breeding introduces new vigor and life in the animal, but I would keep the parent stock on both sides pure. Another advantage of using the Polled Angus bull would be that ninety per cent of the calf crop would be hornless.

### Feeding the Young Calves

Feeders are slowly learning better methods. Years ago hogs were not finished until they were about two years of age; then the time was reduced to one year, then to ten months, until to-day a large number of corn-belt hogs are marketed at seven to nine months of age and at a weight of from two hundred and fifty

to three hundred pounds. Then the feeders of lambs began to discover that they could fatten lambs more economically than old sheep, and now many lambs are sold right from the side of their dam for more money than they would bring at any other time in their lives.

Now come the effects of the changing conditions in feeding beef animals; slowly their age has been reduced from four years to three, from three to two, until to-day the very market toppers, the ones that are making the most money for their owners, are being sold in their yearling form, weighing from one thousand to fourteen hundred pounds.

In feeding the young calves I believe that it is the best method to allow them to remain with the dam for the first three days. Nature has stored up in her udder a secretion called colostrum, which is intended to regulate their digestive organs and get them well started toward a thrifty and vigorous life.

Next comes the hand feeding of the calf. Above all, do not think because it is a promising calf that it must have all that it will clean up at a feeding. For the first three weeks I believe that calves should have whole milk—about two quarts at a feeding is sufficient—but if fed three times a day, which is best, the noonday meal should be only one half ration.

After about five weeks the daily amount may be divided into two feeds and the whole milk gradually changed to skim milk and some form of grain food substituted to replace the butter fats removed by the separator. Do not think because the milk has been skimmed that you must feed more than you have been feeding of the whole milk, for a little plain reasoning will prove that you are in the wrong. The separator removes the larger portion of the fat or carbohydrates and condenses the protein. Providing the separator removes one quart of cream from five quarts of the milk, it has condensed all of the protein contained in the whole milk into four quarts of the skim milk, excepting a very small proportion that may have been taken with the cream; hence, the skim milk is considerable richer in protein than the whole milk.

How to replace the carbohydrates removed by the separator is the great problem for us to solve in calf feeding. Personally I prefer to use ground oats with hulls sifted out and linseed-oil meal mixed about half and half, although many of the very best feeders obtain excellent results with numerous other grain foods. Some of the experiment stations report the best results from feeding whole corn with the skim-milk ration.

The calves should have tender bits of choice hay where they can reach it at all times, and also have access to dry grains at all times. As soon as they will eat a little hay and dry grain there is little danger of derangements unless something is radically wrong with their management. The pens and stables should be kept clean and the bedding dry, so that they will not be compelled to lay on a damp bed or breathe the fumes from manure and urine under them. Do not be tempted to turn them out to pasture until the grass has had plenty of time to become hardened and contains abundance of nourishment. The whole secret of feeding for baby beef is to provide the best kinds of food for the calves, keep them supplied with just enough to satisfy their appetites, and continue this treatment up to the time they are ready for market.

### Management of the Cow Herd

The cows should be managed the same as any dairy herd and bred so that they will drop their calves during November or December, in order that the calves may be started during cold weather and be large, thrifty fellows by the time the pasture is in good condition.

### Time an Essential Element of Success

In feeding animals, as in other things, time is a most essential element of success. Nature has most clearly pointed out to us the road to profit in cattle feeding. It is found in the law that the young animal takes the least amount of food to produce a pound of growth, and that all other things being equal, each succeeding pound of gain in live weight up to the maturity of the animal costs more than the previous pound. This has been established by so many experiments and facts that it may be laid down as a positive law. The feeders of baby beef have established their business upon the principles that young animals make more profitable and economical gains than do older ones or that the cost of a pound of gain increases as the age of the animal increases. W. MILTON KELLY.



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We prove that it works easier and better—because of its frictionless chain drive. If we didn't prove these things, the broadness of our claims—the sweeping character of our guarantee—would prove our undoing.

If we didn't make good on all our claims, our business would be going backward—instead of which our sales are increasing by leaps and bounds. Give us a fair, square chance to prove that you ought to own the Goldenrod in preference to any other separator, and we'll prove it. Write first for the booklet, in which thousands of enthusiastic owners tell what the Goldenrod has done for them, and we will tell you about our special free trial proposition—an arrangement whereby you can prove our claims on your own dairy floor. Competent Agents Wanted. Omaha Warehouse promptly supply Western trade.

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## Live Stock and Dairy

### Dairying and Profits

ONE of the most common queries that I have met concerns the profits that may be made in dairying. There are a large number of farmers who are doing diversified farming on a modest scale who are not acquainted with the profits that are being derived from the dairy business by those who have successfully engaged in it.

Dairying will pay a good profit to any diversified farmer who goes into it in a small way, and who gradually builds up a business to the size that his farm will accommodate without putting himself or his help to too much work to care for the herd and the details that are attendant.

I know one man living in my country who commenced dairying just seven years ago with two cows as a starter. He was a small farmer handling about fifty acres in corn, oats and wheat and doing some little stock raising along the way. It was just such a general farm as may be found in many parts of the country.

The two cows that he commenced doing business with cost him fifty dollars each, and at the end of the first year he found that they were so profitable that he could afford two or three more in the herd if those added would pay as good a per cent of profit on the investment as the two original animals.

At first he commenced weighing milk from the cows, and took it to a creamery to have it tested, so that he would know just the actual capacity of each cow as a butter producer. Lately he abandoned this method of determining a cow's value, and adhered to the churn as a test of her profitability. He knows to the fraction of a pound, as near as it may be estimated practically, just what each cow in his herd is producing in the way of butter.

As a butter maker he has made a great success, because he learned that it was a science and knew that the trade which he was trying to work up would "stand" for nothing but a strictly first-class product. His butter is retailed in a town, and it readily brings ten cents a pound above the market prices the year round.

The herd which he has built up is composed of pure-bred Jersey cattle, and he is handling nothing but pedigreed stock, for it is the most profitable. He finds that the young animals which he cannot use in his herd are in good demand among farmers and breeders who are wanting to grade up their herd of cows.

He is adding a good cow every year or two to his own herd, and from time to time, as was necessary, he has purchased breeding males or disposed of them as his best judgment dictated.

In the first place, I would attribute the success that this man has made of dairying to his constant study of the conditions which affect the successful working along this line. He knows what it takes and does his best to live up to the re-

quirements and essentials of a successful business. He studied the feeding problem from the beginning, and fed every cow according to her needs.

This man is now exceptionally well equipped to carry on his own work, because he is so deeply interested in it that he cannot leave it for others to perform; he wants to be right at the helm of every idea and help work it out successfully himself. He is deeply interested in his own work; and this is nothing more than the element called genius in those who are successful in the various lines that they take up.

In visiting this farm and looking over everything in the way of arrangements and conveniences, and learning just what profit was derived from the herd each year, it more strongly impressed on my

### Producing and Curing Pork in Virginia

I HAVE never seen a piece of Western bacon that could compare with that we produce in Virginia. Why so? It is because the Western hog is a coarser and larger animal, made so by feeding almost exclusively on corn and swill from the time he is able to crack corn to the day he is killed. The inducement to pursue such a rule in feeding is the great desire to make the largest number of pounds in a given time. Get as many dollars out of the hog as possible at the least expense is the shibboleth of the Westerner. Thus sacrificing quality to quantity.

Here in Virginia we pursue quite a different method; we run our hogs in pastures, compelling them to eat all the grass and clover within reach, and also sow peas, oats and sorghum for them to graze, so requiring but little corn. We give buttermilk in moderate quantities; it produces a delicate fat and a fine flavor.

The hog should weigh not more than one hundred and sixty pounds when twelve months old. About six weeks before killing we confine our hogs in pens and give them plenty of corn, turnips and pumpkins.

We slaughter and care for our pork in quite a different way from the Westerner. We select a cold day in the late fall, kill in the evening, and after cleaning well and removing the intestines, hang the slaughtered animals on a pole in the open air, putting a stick inside the hog, to keep his sides apart, and put a cob in his mouth. We let them remain out all night, so all the animal heat may escape, but the meat must not freeze, or it won't take salt. The next morning we cut up the hogs, removing all inside fat and bloody parts, then proceed to perform what we consider the initial step in the process of curing. All parts of the hog are rubbed well with salt, and in addition the hams and shoulders are rubbed well with a mixture of powdered saltpeter and borax on the fleshy sides and on the hocks. All is then packed down in a close box in a dry corner of the smoke house putting the middlings down first, shoulders next, and placing the hams on top, salting as we pack, and filling up the interstices with salt; the jowls and heads can be jammed into the larger crevices. We now cover the box with a cloth, so as to keep out all insects.

After the expiration of six weeks we take all the pieces out, striking them gently together, to get the salt off; also wash the hams and shoulders in warm water, and give them a day to dry. Rub the hams and shoulders again with borax, then put on a solution consisting of molasses, brown sugar and black pepper, adding some cayenne pepper on the fleshy sides, string on wires, and hang up in the smoke house. Smoke lightly at first with hickory chips, increasing the smoke from time to time until the meat is well seared; this usually occurs in three weeks, being somewhat governed by weather conditions and the tightness of the building.

This ends the curing process, and your bacon can hang up where it is until required for the table. E. W. ARMISTEAD.



A Western Barn and Silo

# USUAL CROP OF CREAM SEPARATOR SNARES AND TARES

If actual merit alone prevailed the DE LAVAL cream separator would be the only one made, sold or used.

But the dairy farmer with his dollars is an alluring proposition to those who "need the money," so that every season brings with it a new crop of separator fakes and fables, with some of the old conjurers over again and always a few fresh ones.

Last year the new and improved line of DE LAVAL machines literally swept the field. This year everybody has a "new" machine, which is the one thing they universally harp upon in their talk and advertising. But it is mostly bosh and nonsense. There is mighty little new to them. No more DE LAVAL patents have expired so that there is nothing else "new" that they can lay hold of this year.

There's the usual crop of fakirs appropriating the facts of DE LAVAL separator use and the endorsements DE LAVAL separators have received, and quoting them as though they applied to their own inferior imitations of the standard cream separator.

There's the concern which makes an inferior disc separator and speaks of the "disc" separator being "the machine which has won out universally in Europe, the home of the disc separator." True, but it was the DE LAVAL that has done the winning out in Europe, as it has in America.

There's the political separator concern, with the new "year" or "cents" trademark, whose claims it is to be hoped nobody ever believes, and which manifestly practices the circus man's theory that the great American public ever likes to be fooled.

There's the only concern which has stuck to the abandoned DE LAVAL "hollow bowl" of 30 years ago, but will this year desperately join the procession of 10 year back DE LAVAL imitations with a "disky bucket bowl" machine.

There's the "Trust," striving to complete its monopoly of dealer and farmer, harvesting much costly separator experience, largely at the expense of buyers-for-use, through trying to build a cream separator like ordinarily made farm machinery.

There's the "mail order" outfit, with their cheaply made machines, bought here and there, not made by themselves or sold under the real manufacturer's name, all claiming the earth, and many of the things that should be below it.

But the merry lot changes and dwindles every year. They gradually drop out and leave their unfortunate patrons helpless with trashy machines. More will fade away this year. The dairy farmer, like the creameryman, is coming to know something of separators. He doesn't swallow mere "claims" so easily. 98% of the world's creamerymen use DE LAVAL machines. The percentage of farm users content with nothing else is always increasing.

There isn't a single reason why every man who buys a cream separator this year should not buy a DE LAVAL. There are many reasons why he should. The best costs no more than the various grades of inferior imitating machines.

A DE LAVAL catalogue may be had for the asking  
A DE LAVAL machine may be tried for the asking

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## Live Stock and Dairy

### Preventive Treatment for Milk Fever

ONE of the most serious ailments with which the dairyman has to deal is parturient paresis, commonly known as "milk fever." Within the last year or two the varied and drastic treatments formerly practised by veterinarians have been supplanted by the use of oxygen or sterilized air. In the hands of a skilled practitioner this has, in the great majority of cases, proven very effectual. True, the layman may have equally successful results, and frequently does; but there is always a danger of complications arising, which the professional will understand and be able to combat as they appear. At all times prevention is the best remedy. It is here that the owner can get in his best work. Of course, the most precautional measures will not invariably ward off an attack. They will, however, afford the means of decreasing its severity, and in a large percentage of cases totally prevent it.

As a rule it is the best cow in the herd that is liable to affection. It is more common after the third, fourth or fifth calving, very rarely after the second, and quite unknown after the first. The most generally accepted theory as to the causal factors may be briefly stated: During the later stages of pregnancy the udder is thrown into a state of inactivity. Owing to the development of the calf, the blood of the cow becomes loaded with a large amount of nutritive as well as waste material, and the red blood corpuscles become diminished in size and number. When parturition takes place a large amount of the blood is suddenly conveyed to the udder. This sudden change may cause congestion of that organ, and consequent derangement of the secretory cells. This combined with the effete fluid, always to be found in the udder of mature cows, gives rise to the formation of a poisonous product, which produces the characteristic symptoms.

The fallacious methods that are held and religiously practised by some farmers with a view to preventing milk fever are almost entirely contrary to natural laws. The idea of putting a cow on short rations and dosing her with purgatives is generally attended with more damage to the animal than any benefit she is likely to derive. By drenching in the ordinary way the medicines are more or less likely to get into the bronchial tubes and lungs, setting up inflammation and causing death. Moreover, the weakness generally following such an operation results in a loss of vitality at a critical period, when the demands of maternity require the conservation of strength. Of course, it is desirable that the bowels be relaxed, but there are safer and saner methods by which this condition may be secured. If she is on grass, the necessary laxative is thereby furnished, and there will be no further need for attention in that respect; otherwise, give plenty of succulent or juicy feeds, such as silage, roots or an occasional bean mash. Also drop out the concentrates for a week or ten days before and after calving.

Another fallacy rigidly adhered to by many is to milk the cow out dry immediately or as soon as practicable, in order to relieve pressure in the udder, which they suppose to be favorable to the trouble. It should be remembered that in milk fever, so called, there is no fever whatever, the whole system being cold and partially paralyzed. It is essentially a disease of domestication. In her wild state or on the range the cow is surrounded by natural conditions; the modern, heavy-milking bovine has been evolved from these and maintained in her present state by artificial methods. As the act of parturition approaches it is well to go back to Nature for the time being. Here there is present no ambitious owner with a sixteen-quart pail to see if she will fill it, that he may tell his neighbors what a wonderful cow he has. This early milk, called colostrum, is quite unlike the normal new milk a few days later, and is provided by Nature for the calf, which obtains it without completely emptying the udder. If it is thought best to remove the calf directly after birth, imitate it, when drawing off the milk, by leaving some in the udder. A certain amount of pressure is a good stimulant. By milking out thoroughly, pressure is removed, and the udder reduced to a state of collapse. Inactivity thus produced is good ground for the development of chemical or bacterial changes, which may rapidly take place and cause the disease. If conditions similar to those given when the calf is left with the cow were provided, the udder would not be emptied for forty-eight hours. Statistics in hundreds of such cases show that milk fever is practically unknown, or, at most is of a very light type.

If an animal shows symptoms of this disease, delays are particularly dangerous. Where a veterinarian cannot be summoned immediately, a common bicycle pump may be pressed into service. Have attached to this some rubber hose and a teat tube which have been thoroughly disinfected. The udder should be pumped full of air through all the teats, and each tied with a tape, to prevent its escape. The results realized are: First, arrest of the changes that are going on in the udder; second, the red blood corpuscles are compelled to take more oxygen than they voluntarily do in the lungs, thereby increasing the alternative power of the blood; and, third, by pressure on the secreting cells of the udder, they are brought to a healthy and vigorous condition.

J. HUGH MCKENNEY.

### Get the Horses Ready for Spring Work

It is very essential to have the farm horses in healthy condition and toughened for spring work. Imagine yourself penned up all winter and taken out some hot spring day and expected to do a hard day's work.

Commence preparing the horse for spring work at least a month before the spring work begins, by liberal feeding, currying, light work and driving. It is especially necessary with the colts and young horses to notice the feet; if grown out long or crooked, take to your horse-shoer and have them trimmed to their natural state; or, better, have a set of tools consisting of hoof parers, rasp and farriers' knife, and do your work at intervals, when you see fit.

Be sure to fit your horses out with a good collar, for that is where most of the "push" goes. Imagine your horse working with a poor collar, with perhaps half the padding lost out, pinching and galling at every step; yet your dumb servant never flinches or shirks until it becomes practically unbearable. Some day when you have several miles to walk with a corn on your toe or a blistered heel, I think you can truly sympathize with him. The collar should fit the horse and the harness fit the collar, being sure not to get it too short, as a fit when the head is low is much too short when the head is held erect, thus resulting in a sore neck and low-carried head.

Keep the horse well stabled from cold and rain to promote early shedding of the coat. If he has not completed shedding at the opening of the work, have him clipped, which will enable him to do one third more work, without danger from cold, to which a heavy-coated horse thoroughly wet with sweat, taking half the night to dry out, is subject, and without the fatigue caused from free sweating.

Go slow the first few days, to do the horses justice, until they become accustomed to hard work.

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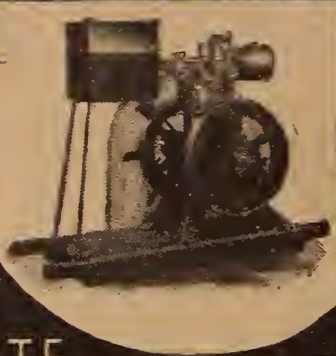
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# Poultry Raising

## Points of the Plymouth Rock

A FRIEND of FARM AND FIRESIDE asks, "Will you please tell me what points or marks a full-blood Plymouth Rock cockerel should have to be fit for show?"

There are several varieties of the Plymouth Rock, as the Barred, the White and the Buff. These general characteristics may be found in the former: A grayish-white color, crossed very regularly with parallel bars of blue black running in straight and clearly defined lines the whole length of the feathers, also showing on the down, or under color, of the feather. There should be good size, a broad neck, rather flat at the shoulders, full breast, a body broad and compact, wings folded gracefully, the points being well covered with breast and saddle feathers. The head should be of fair size, not too large, adorned with upright comb, bright red, in color, and well-formed wattles. The eye should be clear and bright. The beak, legs and toes should be a soft yellow.

The essential differences in the White and Buff are to be found in the color, the size, form and general outlines being the same in all the different varieties. The White should be as pure in color as possible throughout, while the Buff should be also clear buff, uniform in shade except the tail, where we should look for a deeper color, bearing well toward copperish yellow. The standard weight of cockerels is eight pounds.

E. L. VINCENT.

## Picking Ducks

IT is a general mistake that many poultry owners make in picking their flock of ducks in the spring before the laying season is over with, thus causing the hens to cease laying earlier than is their custom, and necessarily cutting down the season's profits from their flocks.

As long as the ducks are laying well the picking season should be postponed, until the owner is satisfied that their season for egg production is on the wane.

At this time, by noticing the flock, we discover that feathers are accumulating about their roosting quarters, and upon examination of the birds we find that the quills are dry and contain but little animal matter within them. At this period the feathers are supposed to be ripe and ready to harvest, and the operation may be performed without delaying the hens in their egg production, as the laying season is well over, and they may be plucked with but little discomfort to the fowls. We deem it a cruel practise to attempt the dismantling of these fowls before the feathers are in proper condition for harvesting.

There are two seasons in which to properly harvest the feathers from these fowls, and these two seasons in our state occur between the latter half of April and the middle of May and any time during the latter half of August to the middle of September. This first season occurs just after the laying period, when these fowls usually shed much of their feathers, and at the usual molting season of autumn, when they shed their summer coat in preparation for growing a new and warmer coat for winter, is the other period.

Ducks should always be well bedded in their roosting quarters, especially should they be well bedded previous to the picking period.

They will keep themselves unscrupulously clean while foraging if given the opportunity, but the owner must see that their night quarters are kept tidy, or picking of the fowls will become disagreeable and the feathers filthy.

This latter feature must be removed before the feathers are wholesome for use as bedding material, and they should be taken to a good renovating establishment, where steam may be employed in removing all foreign scent and in rendering the feathers fluffy and light. If only a small quantity of feathers have accumulated, as for cushions or a few pillows, this renovating may be accomplished at home by steaming the feathers over a kettle of boiling water, placing the feathers in a wire-bottomed crate, and after thoroughly steaming them, hang them over an outdoor stove or place them in an open oven to dry by artificial heat, when the animal smell will have disappeared. Sometimes sulphur is burned under the crate, which is beneficial in removing the foreign scent from the feathers.

To remove the feathers expediently and painlessly from the birds, they should be placed by the operator with the head back under the left arm, holding

it securely in this manner, and with the left hand firmly gripped upon the pedal extremities. In this manner, by gripping with the forefingers and thumb, small tufts of feathers, pulling in the reverse of their growth, they may be picked quickly, cleanly and with little discomfort to the fowls.

The most popular breeds for feathers are the Pekins, both American and Imperial, and the Aylesbury, as they are the most fluffy and down-producing breeds, being pure white in color.

Ohio. GEO. W. BROWN.

## Enlarged Crop

A FRIEND and reader has trouble with an enlarged crop in his flock of hens. He says they have "all the sand they want, and he feeds shelled corn, wheat bran, cooked potatoes, ground clover and raw meat." Still, everything he feeds them passes undigested.

Usually troubles of this kind come from swallowing something which clogs the passage, like long grass or a bit of rope or rag. If the hens are where they get dry grass, that probably is the cause of the difficulty. Often by giving a few drops of sweet oil, and carefully pressing the crop while the hen is held with the head down, the obstruction may be forced out of the mouth. After that give no hard food, but make milk the principal article of diet until the crop is well emptied. A little powdered charcoal mixed with the milk will act as a relief. In case the crop does not empty properly, it may be necessary to cut a slit in it, and so remove the contents, sewing the cut up with a needle and white silk thread. In such an event only soft feed should be given for a time, with but little water.

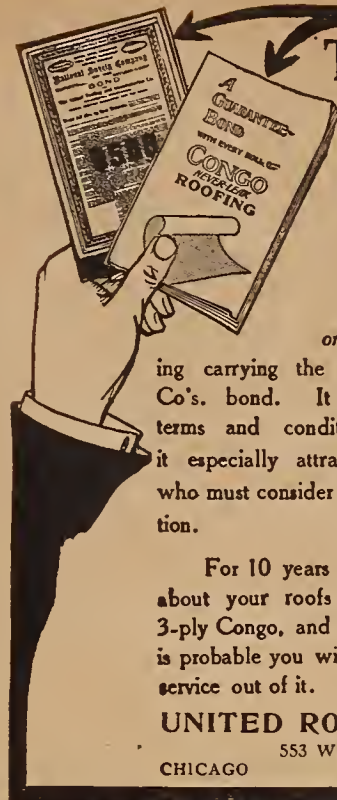
Soggy or unwholesome food may sometimes cause soft or swelled crop. Should this occur, change the feed, so that nothing of that sort may be fed. Cut off the supply of water, and feed for a time moderately of soft food with chopped onions. Small doses of charcoal are valuable in this trouble. E. L. V.

## Poisoned Ground in the Poultry Yard

IT is a common thing to hear of people who have had excellent success with their hens for a few years, then they begin to go wrong. In the majority of cases I believe this is the result of nothing else than "fowl sick" yards. Perhaps in some cases it is "fowl sick" houses. In these neglected yards the ground becomes tainted by being saturated with the excrement, is obnoxious and repulsive to the fowls, and eventually makes them sick. This is more apt to be the result when the yards are small or when a good many fowls are kept for the ground space. In this respect the colony-house plan is an advantage over a continuous house with yards.

Unless the yard is large enough, so that the grass can be kept growing, to keep the soil sweet and pure, the only way is to change the ground. A plan that has given good satisfaction with me has been to have two yards—one large one on the north side of the house for a warm-weather run and the other a small yard directly in front at the south of the building. The latter I have large enough so that it can be plowed with a team, and this I use only during late fall, mild winter weather and in the spring. By keeping the flock in this run until along in the spring, the grass has a good chance to get started in the large yard. Then as soon as I turn the hens in there, the small yard is plowed and some quick-growing crop put in. After cultivating this for a few weeks or until harvested, the earth yard becomes clean of the poisonous droppings; then as soon as this crop is off I sow the winter rye.

By this plan, if the north yard is of reasonably good size for the number of hens, it can be kept in permanent grass, and this growing grass will take care of the poultry manure made during the summer months. And you will see that by having the hens on the grass ground only a part of the season, say four months, there will be only about half the usual amount of droppings on this plot of ground, and the summer and fall rains will wash them well down into the ground, when the grass roots will take them up as a fertilizer. There is a great difference in soils about taking up droppings and filth from the surface of the ground, and I believe this is a matter that should be looked to by all who keep their poultry yarded. Keeping two yards for one flock makes some extra work, but it pays me. VINCENT M. COUCH.



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# Poultry Raising

## The Turkey Nests

**Q**UITE early in the season one should begin to plan for the turkey nests, for as early as the middle of February the old or mature hens will begin to seek about for nests in which to deposit their first laying of eggs.

A salt or cracker barrel stuck away in some secluded hedge corner or in a pile of brush alongside the orchard fence makes a very inviting place for them to make their nest, and if filled partially with soft grass or prairie or swamp hay will suit them much better.

Such decoy nests should be placed out early, as this will prevent them from strolling away beyond their bounds in order to find a suitable place, for they will hunt for a secluded place if they must go a half mile or farther away in order to find it. **GEO. W. BROWN.**

## Scraps of Practical Value

**I**N REPLY to the inquiry of a friend of **FARM AND FIRESIDE** I would say that we use linseed meal in our poultry yard about as follows:

For a dozen hens take, say, one tablespoonful of the meal every morning mixed with the mash. By watching the droppings one may see whether it is acting too freely on the bowels of the birds, and if it does, slacken up a bit. This we feed right along in cold weather. If the hens are running everywhere in summer they do not need the meal as much as in the winter, when they are more confined. Some feed more than this, but we do not like to do so. Better not feed too much. During the molting season some meal may safely be fed.

This same friend also asks, "How many cockerels would you consider adequate to insure fertile eggs with ninety hens and perhaps twenty pullets two thirds grown?"

This can be answered only relatively, depending upon the condition and size of the male bird himself. If he is of good size and thrifty, one male to twelve or fifteen females is all right. In case he is lacking in size and vigor, the number of females should be reduced, or the fertility of the eggs would be seriously impaired. **E. L. VINCENT.**

## Poultry and Fruit

**I** FIND from my own experience that fruit growing makes an excellent combination with the raising of poultry. By this combination a man is able to secure two crops from the same land, beside the soil being improved by the poultry droppings. Insects which are injurious to the trees are devoured in great numbers and kept in check and the soil under the trees kept loose by the hens; while, on the other hand, the trees furnish an abundance of shade for the poultry, which is so essential during the summer and fall.

Where you have a small orchard, and wish to run poultry in, I think it a good plan to fence the whole with chicken wire of some kind. By having the whole orchard fenced, the fencing does not interfere with cultivating the trees, and will prevent any other hens from ranging on your land, and in this way the danger of getting some contagious disease is much less.

The colony system is easily used in an enclosure of this kind, and this I think is one of the most satisfactory methods of keeping poultry. The houses need not be expensive, and should be of a size that is easily moved about. A house about eight by ten is a very convenient size, and can be moved about when desired, and will accommodate about twenty-five birds very well. Having the houses movable enables one to have the houses on fresh ground when desired; this I consider one of the special good features of the colony system. When the house is built so as to be constantly at the same place it is almost impossible to keep the ground fresh.

The roosts should be made so as to be taken out when desired, and by painting the house on the inside with crude oil two or three times a year, mites can be kept down.

By a judicious use of the hopper method of feeding in connection with the colony system the labor in the house can be reduced to the minimum consistent with good, profitable returns.

The special beauty of this system is that the birds are on free range, have the advantage of free life and can be cared for the same as when kept in confinement. This includes the advantages of both without the worst disadvantages of either.

One reason why so many fail with poultry is because the amount of labor is so great that it is not properly performed.

I should say to the reader, try this system and see what the results are with the proper management—getting a profit from both poultry and fruit.

**R. B. RUSHING.**

## Selecting Poultry When Buying

**M**UCH CARE should be exercised in selecting fowls which are bought for breeding purposes with the object of improving a flock. Lice and a number of diseases, some of which might do much harm can be introduced into a flock in this way. It is not very profitable to bring a sick bird into a flock of healthy chickens, even if it is of very pure blood. So it is well not to be careless while making such selection.

If there is sickness among the chickens, some of them will be likely to show it, even if the one we are intending to buy may appear to be well. A bright red comb and a glossy coat and a wide-awake, alert appearance are all signs of health, while a pale comb, a dull coat of feathers and an indrawn neck tell of ailments. They should be full feathered. Never take a bird that is trying to be passed as "molting." The legs should be clean and have a healthy appearance. Then the body should be closely examined for lice. If a bird has stood this examination, and the flock in general appears to be in a good condition, it is quite safe to assume that the bird is well enough to bring into a healthy flock. **GREGOR H. GLITZKE.**

## Treatment for Roup

**A**N IOWA reader thus describes a disease which is troubling her flock:

"A mattery substance forms in the corner of the eye, and perhaps the eyes will close sometimes. There is an offensive odor from the nostrils. The chicks become very light in weight, act stupid and eat little. They do not lay at all, and have not for about three months. The disease runs through young and old hens alike. I give good feed and a warm house."

The symptoms point to roup, or diphtheria, as we know it among persons. It is a highly contagious disease and one to be dreaded. Exposure to cold, drafts, damp houses and unclean quarters are at the bottom of different cases. If the birds get run down in vitality from any reason, the disease is induced. Foul water may bring it on. Where the trouble is severe the bird rarely recovers.

On the first sign of this disease the bird should be removed from the house and the quarters disinfected by burning sulphur and carbolic acid for two hours when the fowls are out. Also drop turpentine and carbolic acid over lime until slaked, then scatter this about the houses. A good remedy is as follows: Tincture of aconite, ten drops; tincture of spongia, ten drops; add alcohol to make one ounce. Put one teaspoonful of this in a quart of drinking water daily. Kerosene is good. Plunge the head of the fowl in the liquid, withdraw quickly, and wipe dry with a soft cloth. The eyes may be treated by washing with warm water twice a day and anointing with vaseline. If the bird does not quickly respond to treatment, put it out of the way and bury it. Never let a hen with roup drink where the others do. **E. L. V.**

## Poultry Notes

Two moth balls put into each nest will keep them free from lice.

Take care that the pullets do not get fat, for they will not lay well if they do.

Give the hens something to scratch in, for the scratching hen is the one that lays.

While a variety of food is essential to laying hens, yet plenty of non-fattening food is more essential.

Feed green cut bone and meat scraps mixed in the hens' mash, then the bosses will not get more than their share.

During cold weather give the hens chopped apples, cabbage, or some other vegetables, for these will help to keep them healthy.

Poor beans boiled soft, with a piece of fat meat put in for seasoning, makes good food for hens. They may be fed clear, or mixed with their mash.

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# The Cabbage Industry

**T**HE cabbage crop is an important farm crop, especially in districts where it can be grown successfully. While the market demand is somewhat uncertain from year to year, thus making the grower run an element of risk and chance, the average profit, taking one year with another, is sufficient to classify it as a profitable and important crop for the general farmer to produce.

The distance from a local market need not prove a drawback or a great objection to the raising of cabbage, because they can be shipped in carlots to commission men in the large cities or in barrel shipments to retail merchants. Experience in producing the crop is the best instructor in growing it.

A deep, rich, well-drained clay loam is the ideal soil for cabbage, the richer the better. As a general rule, land that will produce a good corn crop is a suitable soil for cabbage, although the cabbage must be manured and fertilized much heavier than the corn crop.

One should be careful never to follow turnips with cabbage, on account of the club-foot disease, and the same is equally true with a crop of cabbage or of mustard. At least three, and generally four, years should elapse before using the same field again for cabbage as the club-foot disease will remain in the soil at least that long, and affect the crop.

The best time to plow for cabbage is in the fall, especially if it is meadow land. This, by exposing the soil to the hard freezes, has a tendency to destroy the wire or cut worms that may be present, and it also leaves the soil in better condition. If not plowed in the fall, it should be done in the early spring, and frequently worked until it is in a fine, mellow condition when ready for transplanting along the latter part of June or the fore part of July. A clover sod will show its beneficial effects, and it is a wise idea to follow clover with cabbage. A thrifty growth of rye for a green manure is also valuable to plow under.

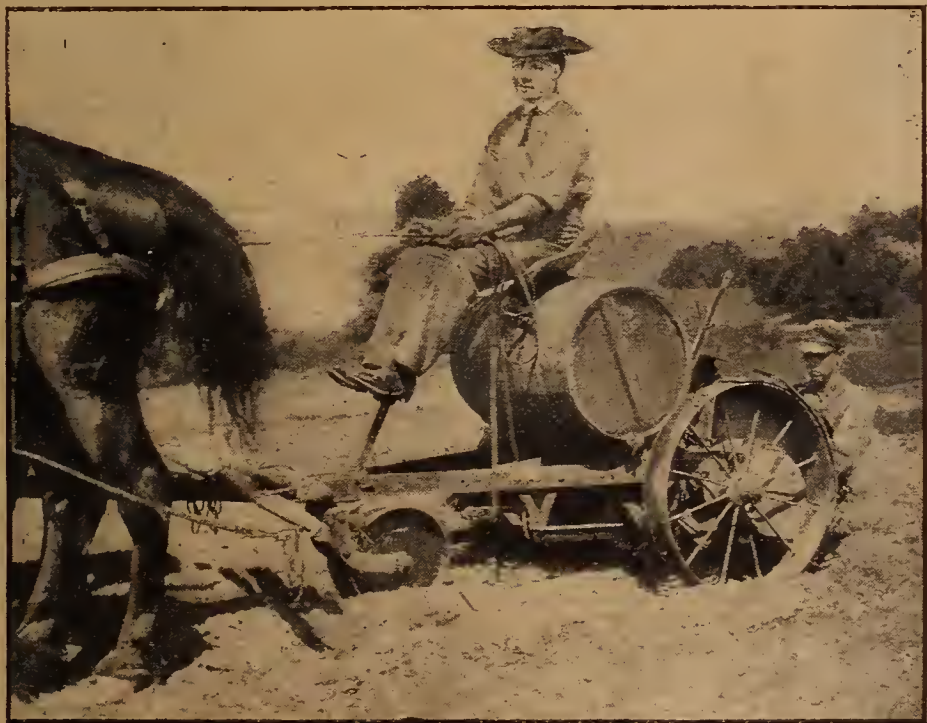
In buying the seed, one should purchase only from reliable seedsmen. It is poor economy to save a dollar or two a pound in buying seed, as the loss in the

seed drill or broadcast. Of these two methods, I by all odds advise the broadcasting. When planted with a seed drill the seeds are not evenly distributed over the ground, although the rows may be comparatively far apart, and the plants come up thick in the row, and unless thinned out by hand, are almost sure to be spindling and tender. When sown broadcast there is more room for the roots to spread out and the stalks to develop into strong, tough, robust plants. If the weeds have been well killed out by thorough preparation of the soil, and plenty of fertilizer is added, the plants will hold their own against the weeds. After sowing there is little more to do until time for transplanting, except to protect them from woodchucks and rabbits.

For early cabbage the seed should be sown as soon as the ground is free from frost. They can be given a start under glass or in boxes in the house, but this is not to be recommended. For the late crop they are sown about the middle of May.

The plants are transplanted to the larger field along the latter part of June or the first week in July. A liberal amount of high-grade fertilizer, depending upon the soil and previous crops, should be sown a short time before transplanting. If litmus paper shows the soil to be acid or sour, it should be sweetened by an application of lime or of wood ashes in addition to the fertilizer. Many sow the fertilizer in the row, but I am in favor of spreading it out, which will induce the roots to spread out over a greater area and to a greater depth in search of the plant food furnished by the fertilizer, and thus bring them in contact with more available plant food naturally in the soil. When sown only in the row or in a small circle around the plant, the roots will bunch up and will not make use of half the feeding area they will use when the fertilizer is more widely distributed. An ordinary grain drill is the best machine for putting in the fertilizer previous to transplanting.

The plants should be twenty-two inches apart in the row, and the rows three



The Transplanter in Operation

yield from the inferior quality of the seed may amount to hundreds of dollars. It is also advisable to buy the needed quantity early in the season, before the seedsmen's stock has been so reduced that he may be tempted to fill the order from second-grade or old seed in order that he may supply the demand.

The seed bed should be located in or near the field intended for cabbage, and should be the richest soil available. It should be most thoroughly pulverized as a preparation for the seed. Rich stable manure and a liberal amount of high-grade fertilizer should be applied and mixed with the soil. Wood ashes and potash fertilizers are excellent, both for the seed bed and for the field crop. Too many make the mistake of sowing the seed so thick that the plants are weak and spindling and stand a poor chance of making a vigorous start after transplanting. A good plan to follow is to pick out the area one might think large enough for a certain quantity of seed, then just double it, and ten chances to one the area is just about right.

The seed may be sown with a regular

and one half feet apart. A transplanter is used for setting the plants, and is a great step from the old backaching method of doing it on the hands and knees. It makes the work not only quicker and easier, but is much more thorough and leaves the plants in a far more favorable condition for making a start. A large iron roller in front crushes all lumps, and this roller is followed by a V-shaped shoe that makes a furrow in the soil. The plant is placed in this furrow and held until the click of the watering apparatus. This is arranged to trip at regular distances and spurts a small quantity of water around the roots of the plant. Then two scrapers on either side bring soil around the plant, filling up the furrow, and two following rollers pack it firmly. The machine requires a driver, and two men behind to handle the plants, and from two to four acres can be set in a day, depending upon the condition of the field and the length of the rows. There is a fertilizer attachment, but as it drills it in the row only, we use the grain drill. The

[CONCLUDED ON PAGE 18]

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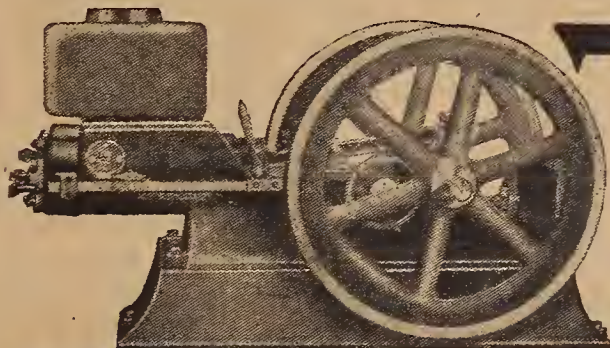
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## Farm Notes

### Root Crops

Now is the time to be laying plans for next season's campaign. Past experience should be brought into use and a general plan of operations decided upon. Past results should serve as a partial guide in determining what lines are most likely to prove desirable in the future. Not that one should be constantly changing plans and shifting from one thing to another. Few greater mistakes than this can be made, but we should all try to profit by our experience.

I believe that the root crops constitute one of the lines which should not be passed by without consideration on those farms where animals which would use them to advantage are kept. While our Canadian and English friends make large use of these crops they do not occupy a large place in the agriculture of our own people. There is an important underlying reason for this in the fact that our climate as a whole is much less favorable than theirs for this line of work. Roots develop best in cool, moist weather, with plenty of moisture in the soil, just the conditions which are often absent with us during much of the time when they must make their growth. This was particularly true during the past season, when the unusually long-continued dry weather of late summer and autumn proved very injurious to all crops of this kind. The hot, dry weather which prevailed gave just the right conditions for the increase and spread of plant lice, and they did increase bountifully. They attacked the turnips in such numbers that they entirely destroyed the tops in many cases, thereby inducing decay, which seriously injured the keeping qualities.

In spite of these disadvantages placed upon us by climate, I feel sure that we can still find it profitable to grow some roots on farms where hogs or sheep are kept. We cannot expect to get as large yields as we otherwise might; but we can get yields which will materially help to reduce the size of the grain bill.

Let us first consider the carrot, since it will help to reduce the cost of feeding the teams, and so will prove useful on every farm. Owing to the small size and delicate habit of growth of the plants, carrots require more labor than the larger roots. A rich, mellow piece of land should be selected reasonably free from stones and as free from weeds as possible, for here the wheel hoe and finger weeding must come into play. If the ground can be plowed in the fall and worked over early in the spring, then once or twice more before sowing, the cost of weeding can be materially reduced. For best results the seed needs to be sown fairly early, however, and we cannot wait to do too much of the weeding before sowing. Promptness is an important factor in the later care. If weeds are never allowed to get much headway, the total cost will be much less than under opposite conditions.

Since hand work must be the chief dependence in any case, I believe that close planting, with no attempt at horse cultivation, will prove most satisfactory. In my own piece last year the rows were fourteen inches apart. One of the hardest things to do is to get the right stand. If too thick, there must be much extra work in thinning; if too thin, the yield is too low and the carrots may be overgrown. The seed being rough, light and irregular in shape makes it difficult to sow evenly. The first essential is perfectly reliable seed, which can be depended upon to grow; then the drill should be very carefully tested, being set to sow just about as thin as it can be trusted to scatter the seed without clogging.

The next crop to go in will be the mangel-wurzels. Here it will be possible to do a little more in the way of working the ground before sowing, but they ought to go in early in May for best results. Being a much stronger-growing plant, I prefer to make the rows far enough apart to admit of horse cultivation. Here again it is difficult to get the right stand, owing to the variation in size and roughness of surface of the seed balls. My own crop suffered greatly the past season from a little lack of attention to make sure of the quality of the seed, with a consequent poor stand.

I find the mangel-wurzels excellent for swine and poultry. I notice that the swine in particular seem to like them much better than they do turnips. An Ontario friend who has had long experience in feeding roots tells me that the mangel-wurzels do not reach their best feeding condition until the first of January or later. I cannot say as to this from my own experience.

Turnips are more easily grown than any of the other root crops. They require less time to grow, enabling us, if we improve our opportunity, to get the ground in shape and do most of the weeding before the crop goes in. The seed should be sown about as thin as possible, and the plants thinned to a distance of twelve inches or more in the row. While not relished as well as mangel-wurzels, they make a very good feed for swine and will help to materially reduce the cost of wintering the brood sows. If carrots are not available, they will help to keep the colts growing and will add a little to the maintenance ration of the older horses. Some report good results in feeding mangel-wurzels to horses. I have not tried this, but notice that when a beet happens to be thrown in to them they are quite likely to leave it, their preference apparently being directly opposite to that of the swine.

Considerable depends on knowing how to do the work to the best advantage. We had about half of our carrots harvested the past season before we learned how to do it, and even then may not have found the best way. The plan finally adopted was to cut the tops off of two rows at once with a sharp hoe, and drawing these tops to the land already harvested. Then with a horse hitched to a cultivator having on it only one narrow, rigid tooth, we loosened the row and picked up the carrots as easily as potatoes. It is a little inconvenient to throw out and pick up each two rows before beginning the next two, but we found that the tops would catch under the cultivator and throw it out if left lying loose over the rows.

The mangel-wurzels were loosened in the same way, but topping with the hoe does not work so well, since the leaves are placed farther up and down the top, so that these were generally twisted off by hand, which can be easily and quickly done.

Turnips when properly thinned can be very rapidly topped with a sharp hoe. They loosen harder, however, and we found a plow better than the cultivator tooth for this purpose.

Each winter finds me wishing for more roots. I find that in spite of the unfavorable conditions mentioned, the labor cost per bushel the last season was not excessive, and the saving of grain is a very important item. FRED W. CARD.

### The Cabbage Industry

[CONTINUED FROM PAGE 17]

machine leaves the plant in much better condition than can possibly be done by hand.

Cabbages require frequent and thorough cultivation, especially at the start. As soon as they have recovered from the effects of transplanting, it is well to cultivate them and work as close to the plants as possible. A boy should follow the cultivator to uncover those that have been covered. As soon after a rain as the ground will permit is the best time to cultivate, but one should go through them once a week at least until they pretty well cover the ground.

Before planting the field, or immediately afterward, all woodchuck burrows in or near the field should be treated with carbon bisulphid. Some old rags or a piece of cotton batting the size of a hen's egg should be saturated with the carbon bisulphid, then placed in the burrow, and all entrances packed full of earth. The carbon bisulphid is very explosive and must be kept away from all fire and heat. The compound is cheap and can be purchased at any drug store, or if it is not in stock, gasoline is practically as effective, but two or three times as much of it must be used.

If the acreage is not large the cabbages can usually be sold in local markets. They may be sold in the fall or wintered over for the spring market. If there is a sale for them in the fall it is best to dispose of them then, rather than to run the risk of the spring market, which is more or less a matter of chance and speculation. In the fall there is less waste from rot, bursting, freezing and trimming away. The yield varies, but on fertile soil well manured or fertilized it ought to be ten tons or more to the acre. The price a ton is equally variable, but there is a profit in cabbage even if only six dollars a ton can be secured in the fall. LYNFORD J. HAYNES.

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## Farm Notes

### Building Up and Maintaining Soil Fertility

**S**OILS rich in humus have the power of retaining plant foods which have been rendered soluble by the action of frost and rain, and of delivering these soluble elements to the crops as they are needed for the growth of the plants.

Soils containing a good supply of humus are easily worked and are very easily warmed by the sun's rays, which is very essential in the production of a good profitable crop.

Soils that are rich in humus are always greatly benefited by the application of such elements as phosphoric acid and potash, but the condition of the soil in regard to humus should be the first consideration.

It is a fact to be lamented that many farmers know so little about the soil. I too often see fields in which the matured crops show that they are deficient in some of the elements of fertility, and especially deficient in organic matter or humus, which must be maintained if the land is to go on year after year producing profitable crops.

#### Ways of Adding Humus to the Soil

There are several different ways of adding humus to the soil. It can be done either by sowing crops and turning them under green, or by the use of stable manure, or by the addition of any kind of vegetable matter which will decompose in the soil.

The best method that I have ever tried is the turning under of such crops as rye, cow peas and clovers. The peas and clovers do not only add humus to the soil, but nitrogen, also.

In soils that are at all subject to washing, when a crop of the latter is grown and turned under in the fall, unless there is something left on the ground during the winter months, it has been my experience that the washing of the land will be greater than the benefit derived from the green crops, as the land will be left very mellow and easily washed. However, when the land is fed with this green crop of some legume, and then in the fall is sown to rye, which is a very strong grower, there will be very little loss from this washing process.

The adding of humus by the application of barn-yard manure or other matter is not so apt to cause washing, as the land is not made so loose; but instead, where there is a good per cent of such matter as straw or other absorbent material in the manure, it will be rather inclined to hold the land. It has been my experience that land should never go through the winter without some cover crop, and I think that rye is about the best thing that can be put on the land. While rye does not add any nitrogen to the soil, yet I consider it one of the cheapest ways of adding humus.

Nitrogen produces stalk growth and a very heavy leaf growth and gives the leaves a very dark green color. If there is an excess of nitrogen, there will be an excess of stalk growth; this excess of stalk growth will be weak and will not mature so readily as would be the case were there plenty of potash and phosphoric acid to help it mature. While, on the other hand, in soil that is deficient in humus and nitrogen the growth of the crop will be just opposite. It is impossible to mature a paying crop without the element nitrogen. And it is also impossible to have a soil rich in nitrogen without being well supplied with humus, hence it is self-evident that the soil's humus should be looked after. The element nitrogen can be added to soils deficient in humus through the use of commercial nitrogen, but this is not a natural supply, and therefore cannot give the best results.

#### Adding Manure and Fertilizers

Having the soil full of humus from decaying vegetable matter, it is important that the manures and fertilizers which are to supply the needed potash and phosphoric acid should be applied in a way to be of the greatest benefit to the following crops.

I too often see manure that is valuable in fertilizers hauled out in the field and piled in piles about the field, the fertility being washed away by the rains and the nitrogen escaping into the air, which is an absolute loss. When these piles are scattered out on the land and a crop put out it will be readily seen that this is not the proper way to apply it. There will be spots where the manure was piled that will have an excessive growth, and consequently the crop will be uneven and most likely unprofitable.

Land that has an abundance of humus can be supplied with the necessary elements in the proper quantities by the use of stable manure when it is applied with a good manure spreader, as the spreader puts the manure on the land evenly, and if there is a thin spot, this can be covered as heavily as desired with the spreader.

I have often found it profitable to apply such elements as potash and phosphoric acid in the form of commercial manures where the land was well supplied with humus.

Always look to the physical condition of the soil first, and then it is not such a hard task to supply these other elements so as to make it profitable.

R. B. RUSHING.

### The Seed Corn

**W**ITHOUT a good stand of corn one cannot expect a good yield. A good stand requires favorable conditions and good seed.

The ears should be uniform and of a variety which is adapted to his soil and climate; the kernels should be deep, with large germs, to insure a strong plant. The corn should be tested in a tester, which any one can make in a short time. Take a shallow box about three inches deep, probably eighteen inches wide and two feet long, depending, of course, on the amount of corn to be tested. Fill in two inches of moist earth, sand or rotten sawdust, then wires can be drawn across to make squares one by one and one half inches, or the squares can be marked off on a piece of cloth.

When ready to test, take three to six kernels from an ear, being sure to take them from both sides of the ear and toward each end. Place these heart side up in a square, and call this square number one, for instance, the next number two, etc. Lay each ear on a shelf in such a manner as to correspond with its square in the box, or if any one is liable to handle the ears, use the cloth in the tester and number each square; then take pasteboards one inch square and number them to correspond. When the kernels are taken from the ear, fasten the number tag to the butt end of the ear by pushing a nail through it into the pith of the cob. Cover the tester with glass or another cloth. If the cloth is used, put on a thin layer of earth or sand, and moisten. If glass is used, one can easily see just what is going on in the germinating process.

The box should be kept at about the temperature of an ordinary living room, but when the weather is cold I often set the tester on the reservoir of the kitchen range. The heated water keeps the reservoir warm and evens the temperature during the night.

From five to nine days are usually required to bring results, according, of course, to the temperature and changes in temperature. The result from one of these tests is always interesting, as well as profitable and instructive. Often ears which one would suppose were strong in germinating power will hardly germinate at all.

After going over the lot of ears one should quickly dispose of the bad ears, so they cannot in any way become again mixed with the good ones. By this method the yield an acre has been increased on many farms.

OMER R. ABRAHAM.

### The Bean Weevil

**I**N FARM AND FIRESIDE of November 25th Mr. Greiner advises the use of bisulphide of carbon for the destruction of the bean weevil. This is a very good remedy, but I have one that I think is better, and it is certainly cheaper.

As soon as the beans are harvested and ready to use, they are put into bags and placed in a storeroom where the thermometer drops below zero in winter. Every year for the past ten years I have raised a few bushels of Horticultural beans, and I have not seen a "bug" in any of those which I have kept at home. Every fall I have sold what I did not need for my own use. Where they were put in a warm room they were almost invariably found to be full of "bugs." Those who put them in cold rooms did not have any "bugs" in their beans.

My idea is that a certain degree of cold kills the germs from which the weevils hatch. I have kept beans in this way for more than twenty years, and I have not seen a "bug" in any of them.

M. L. PIPER.

Have you the proper tools and implements for your spring work? If not, it will pay you to buy the kind advertised in FARM AND FIRESIDE.



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- 8 Patented flame expander gives 25 per cent. more light.
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## Farm Notes

### The Farmer and His Reading

As a rule we need not worry about the farmer's boy who likes to read. He will come out all right.

I have in mind a farmer lad of half a century ago who was always just about starved for something to read. In those days books and papers were not as plentiful as they are now. Into the home of this boy just one paper came each week, and that was a newspaper of the cheaper class. The only other publication that ever found its way to that house was now and then a copy of the Patent Office report sent by some aspiring politician. Even this was a godsend to the boy, and he pored over its pages when he might have been doing something worse.

Two miles away from that farmhouse there was a small school library. How it happened to be there I do not know. It must be that some time there had been a man or woman in the district who knew the worth of books to the young mind, and perhaps had given the money to buy the books and the case in which to keep them. These were the only books to be had for miles and miles. True, one neighbor had a copy of "Uncle Tom's Cabin" and another of "Dred: a Tale of the Dismal Swamp." These our boy had borrowed and read time and time again. Then he began making trips to the school library, bringing home such works as "Parley, the Porter," "The Pied Piper of Hamelin" and now and then a heavy history. His mother could not keep back a smile when one day he came tugging home the first of a series of five volumes of "D'Aubigné's History of the Reformation." Faithfully the lad stuck to his task till the whole five had been mastered, and there still remained the old hunger for books.

That mother, who had been a teacher in her youth, and from whom the boy had inherited his love for books, determined that somehow her boy should have some books, and she began to save and to buy now and then some choice works of literature. You need not be told the result. That boy is to-day a farmer, but he has the best library I ever saw in a farmer's house, and few men anywhere or in any occupation have a more extensive or better-assorted lot of books than has he.

And this man has begun to do what his mother did for him with his own boys—that is, lay for them the foundation for a good library. The two boys each have bookcases, and these are well supplied with books. As time goes on, new volumes are added to the list, until now they have a choice variety to select from.

Gold is valueless to a young man by the side of a love for good reading. Wings may come to the money and it fly away. Fire may sweep away everything in the line of earthly possession, but the worth of books can never be lost.

But not always do we appreciate the value of good books when we make our purchase. Too often we get the cheapest just because they are cheap, never thinking that the money we save may be the most expensive we could possibly get. In fact, a bad book is costly at any price and never should be tolerated in the family.

May I tell you one thing the farmer father spoken of above did when he found that he had been deceived in the quality of a book he had bought? That book was one that was written by a minister and had been widely advertised as being a most interesting and helpful work. The father had not read three chapters, however, before he learned things that satisfied him that the work was not one he would want his boys to read. He took that book and dropped it into the fire. If he could have done that by the whole wicked brood, what a blessing it would have been for the world! Would that every father and mother were as careful as that of the books they buy for their children!

Good books may be had at a very low figure in our day. Copies of the standard authors are published at small price, and that, too, in very beautiful binding, while all the newer books may be had a few years after publication at a nominal figure. It is a good plan to wait until these books are reduced in price, too, for by that time their real value as literature may be determined. Time is a great sifter of literature. Millions of books rot on the shelves because they ought to rot, and millions more would go the same way if we knew their hateful influence on the minds of all who read them.

Take it, also, in the line of papers

and magazines in our day. What works of art many of these are! How helpful they are in their influence! Clean, without a word that could bring a blush to the cheek of any, these publications are a blessing to the farmer and help to make his life and that of his boys and girls richer and better. A wonderful change has come over the farm papers of our day. Not only do they bring helpful articles on farm topics, but they cover the whole round of letters and real art, and do it in a way to bring shame to the regular daily and weekly publications of a more pretentious sort. Many of these have shut out all objectionable advertising. You look in vain to these papers for objectionable advertisements. How good and clean they are! Not simply the work of the farm is treated in helpful and intelligent fashion, but choice articles for the home circle are presented which are the equal of those on similar subjects found anywhere.

And as one of the effects of this good literature for the farm we are seeing our boys and girls take up the life of the farmer as never before. The effect on the lives of these young people is at the same time most beneficial. Give the boy a book or a paper he loves and he will care little about going down to the corner store to sit around or to do the other questionable things which once stained the life of the boys of the country. The farmer himself, surrounded by his books and papers, is a home man in a far larger and better sense than ever he was before. EDGAR L. VINCENT.

### Thoughts That Fit the Farmer

Wagon wheels are the wheels that carry the farmer's fortune.

Do not buy from every man who has to sell, nor sell to every man who wants to buy.

Some of the resolutions we make at night we break before we rise in the morning.

The work we do cheerfully is a pleasure. Thus we may give ourselves wholly over to pleasure.

The things that cost us little may be expensive to maintain and bring us little when we want to dispose of them.

Never slight a man because of his poverty, for to-morrow he may be rich and slight you for the same reason.

Child life is the best life—it is what we begin with and what we end with. When a man gets tired being a man, which he will if he lives long enough, he is content to be a child again. He is a man but once—he may be a child twice.

There are many poultry raisers who believe in milk for fowls. There are many others who have never heard of the benefits that might be derived from the practise. Milk is both meat and drink. Try it, and you will find that the hens will do much better laying.

Getting older? Yes, but your trouble is that you are so conscious of the fact that with one year of time you add two years in age. You should refuse to think of it at all, so that in two years of time you would add only one year in age. Wouldn't you live longer at this rate?

The man who makes the greatest successes also makes the greatest failures, for his undertakings are always great. He makes more failures, too, than the ordinary man, since he is always doing more. His disappointments are many and great, for his expectations are many and great.

We spend our life in seeking and finding. Man does not seek wealth merely for the sake of wealth, but because wealth comes nearer satisfying that peculiar longing which he has for a peculiar something. The same is true of the man who is seeking fame. Man is always finding a little of what he is seeking. The man who seeks wealth alone or fame alone never finds enough to fully satisfy him. The man who seeks God finds enough of Him to be content. WM. J. BURTSCHER.

Every FARM AND FIRESIDE boy and girl should be an active worker in the splendid Pony Contest we are now conducting. Not only do we offer many ponies, but pianos and hundreds of other magnificent prizes as well. It costs nothing to take part, and any hustling boy or girl has a splendid chance to win a pony outfit or a six-hundred-dollar piano. For full particulars, see page 32.



# The Experiment Farms

It is very gratifying to note the marked change that has come to the thought and purpose of the American farmers during the past few years. Every thinking farmer seems more anxious to acquire a better knowledge of the principles of agriculture and to say a kind word for the grand work that is being accomplished by the various state experiment farms and stations than was the case a few years ago. This change must be very encouraging to the men who are conducting these farms, for they have long realized that the co-operation of the farmers is essential to the success of their efforts.

The successful experiment-farm director must search for truth and the successful farmer must have a disposition to learn this truth and practise it in his every-day management. Efforts are just as essential on the part of the farmer himself as from those who are trying to serve his interests. I suggest, therefore, that while the station officers are being held to practical and vigorous work, we farmers ourselves consult our own interests by giving careful and thoughtful consideration to all the facts our station officers lay before us, either to approve and utilize or to form a basis for a criticism or inquiry. These station bulletins must be written, in order that they may be read; but they must be read—yes, studied and put into practise, before they effect any good.

## Some Fundamental Knowledge Necessary

Before it is possible for a farmer to read these agricultural station bulletins in an intelligent manner it is essential that he possess a knowledge of such terms as nitrogen, potassium and phosphorus, of protein and carbohydrates, and how and why it is that each of these elements is so important to plant and animal life. As soon as these simple terms are thoroughly understood the bulletins of the experiment stations at once become full of interest and practical utility. This fact cannot be recognized too soon or too clearly, and the remedy cannot be applied too promptly. The great tendency has been to assume that the farmer knows more than he really does and to shoot over his head.

Farmers must possess a fundamental knowledge of agricultural science before they can appreciate the good work that is being done for the agricultural interests by the state experiment farms. The educational work of the experiment station is twofold. It furnishes new information through the results of its investigations, and supplies a knowledge of the elementary facts, which enables one to understand what these results mean and their practical importance in every-day work.

I wish to present a few facts and figures to emphasize the magnitude of the work and the dollars-and-cents value of the truths discovered and taught by these stations. There is no other institution that has emphasized so plainly the opportunities for economy in avoiding needless losses in operating our farms.

There is a loss in this country of more than half a billion dollars' worth of fertilizing elements through the careless methods of handling the manure that is being made on the farms during one year. The experiment farm teaches how to utilize this manure and how to save and apply it to the soil with as small a loss of fertilizing elements as possible.

## What the Stations Are Doing

The experiment stations are protecting the farmers who have to buy commercial fertilizers, by analyzing every brand sold in the state and compelling the manufacturer to print the guaranteed analysis on every sack.

They are protecting the farmers who are buying purchased grain foods to feed to their live stock, by analyzing these grain foods and compelling the manufacturer to keep the goods up to the guaranteed analysis.

The loss which the farmers of this country have to bear on account of insect pests and plant diseases amounts to nearly half a billion dollars annually, a large proportion of which could be prevented if the farmers would practise methods recommended by the experiment stations. These figures simply go to show the tremendous interests which are looking to these experiment-farm and station workers for protection.

The experiment farms are also giving great attention to such problems as the adaptability of certain varieties of fruit and vegetables to certain soils and locations. Farmers who are planting an orchard will find it an excellent plan to

communicate with their experiment-farm workers before they determine which varieties to put out. Gardeners should also write and find out about the qualities of vegetables and their adaptability to their climate.

The experiment farms are devoting much attention to dairying and cattle feeding and to growing and harvesting cattle foods at a time when they contain the greatest proportion of digestible nutriment; to selecting the best breeds of horses, cattle, sheep and swine for the specific purpose for which they are to be used; to compounding the rations for live stock so that they will be palatable and well balanced; to caring for the milk and cream and for the utensils used in handling them.

They test our seeds and tell us if they contain foul weed seeds and other impurities. I would advise every farmer to submit samples of grass seed to his experiment station before seeding. Poultry is also receiving a large amount of attention by our experiment-station workers, and the bulletins on poultry husbandry provide a fund of very valuable information for the poultryman. They have shown the dairy farmer the expense of keeping an unprofitable dairy cow and how to find out which ones are paying a profit on the amount of food and care necessary to maintain them. Now these experiment stations are not doing the good that they could if we farmers would co-operate with them, read their bulletins, study the fundamental problems of our business and come out in the open and criticize them when we think they are wrong. Some farmers criticize these institutions because they are a public expense, but if some of these critics would figure more and talk less they would find that the cost of one of these stations does not amount to more than the price of a good cigar to the average farm owner.

## Does the Reading of Bulletins Make Progressive Farmers?

I have noted one thing in particular while traveling in several of our best agricultural states; and that is, when I see a number of well-dressed farmers discussing beef and milk rations, feeding young animals for a healthy development, nitrogen, potassium and phosphorus and protein and carbohydrates and their functions in plant and animal growth, I am invariably in a prosperous and up-to-date agricultural community. Now the question is this: Do the best and most intelligent farmers read these bulletins and keep in touch with their station workers, or does the reading of these bulletins and keeping in touch with the station workers make better and more intelligent farmers? It is one or the other considered from either standpoint, for these bulletins are not read by the uneducated and unprogressive farmers, nor do they circulate in poor farming sections as freely as they do in the better agricultural communities.

W. MILTON KELLY.



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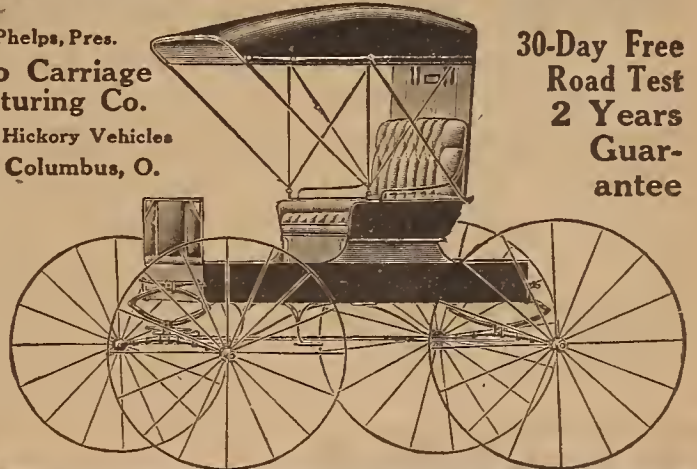
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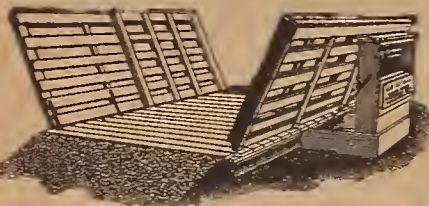
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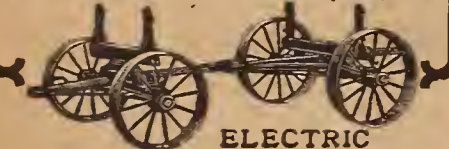
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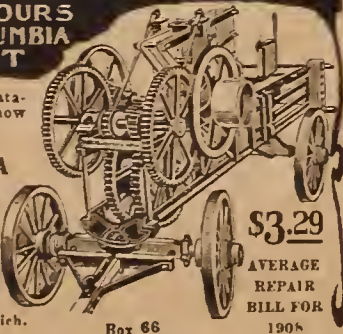
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## In the Field

### Improvement of Grass Land

THE improvement of grass land is an important and an interesting subject, and it is very remarkable that however well arable land may be attended to in the way of manuring and cleaning and good cultivation, yet the grass land is far too often left to take care of itself. There is, of course, a large amount of grass land in some of the best grazing districts which requires nothing beyond what the cattle feeding upon it leave behind; but there is not a very large area of that kind of land, and the great bulk of the grass land bears evidence of the want of some attention, and taking into consideration the relative prices of grain and stock, it is surprising that so much of it is so badly neglected. There is no doubt that it needs improving, and considering that dairying and the breeding and rearing of all kinds of stock is the most profitable branch of agriculture, it must pay well for any outlay that is made upon it. We not only see large tracts of grass bearing evidence of poverty through lack of manure, but also of neglect through the accumulation of ant banks, thorns, and so forth.

### Dairying and Grass Lands

It must be admitted that this neglect is not seen so much in the principal dairying districts of the country as in those districts where mixed farming prevails and where it is very evident that all the manure, care and attention are bestowed on the arable land. It is a mistake to think that because some grass land does not happen to be "feeding" land that it is not worth improving. Even if it cannot be made to feed big bullocks, it can very possibly be made to feed heifers or smaller beasts, and in any event to carry a far greater head of stock.

Different kinds of land, of course, require different treatment, but even the best of land requires some little attention in the way of seeing that all rough patches are cleared up; and should there be any pieces that have grown coarse from not being thoroughly grazed, they should be run over with the mower or scythe at the proper time, and a little mixture of superphosphate and kainite applied, in order to sweeten and bring up the better herbage. The worst kinds of pasture, however, and those that require the most improvement are those on strong wet clays and on peaty and light sandy soils. On the latter it is always difficult to work any permanent improvement, but the consumption of cotton cake and frequent dressings of road scrapings or any other strong soil, such as may be shoveled up out of the rick yard, will do more good than artificial manures, which will probably produce a slight improvement for a time, but will only last a short period, dry bents being almost certain to soon reappear.

### Artificial to Use

Peaty land will almost invariably answer to dressings of basic slag, bones and superphosphate, with a little nitrate of soda or soot. The writer has known land of a peaty nature, to attain the highest state of fertility by frequent applications of slag and bones. Clay lands must first of all be properly drained, and when that has been effected they can generally be brought into a state of high fertility, and the grass or clay land is generally very nutritive, and with some help can often be made to feed stock without much artificial food. A good dressing of farmyard manure works wonders on clay land. Basic slag invariably acts most satisfactorily also, and a top dressing of five hundredweight to the acre, repeated in two or three years' time, will soon be found to make a great improvement.

The three chief substances required for the improvement of grass land generally are nitrogen, phosphoric acid and potash, and a top dressing combining all three is best. The former may be obtained in nitrate of soda or sulphate of ammonia; the phosphoric acid from bones, superphosphate and basic slag, and the potash in the form of kainite. A good mixture, and one that will be found most effectual, consists of three hundredweight of superphosphate, one and one half hundredweight of kainite and three fourths hundredweight of nitrate of soda to the acre. That is a good mixture, either for mowing or grazing. It is of little use treating poor grass land with a slight dressing, and then, again, letting it take its luck. To work any permanent improvement it must be treated every two or three years at least.

What applies to the improvement of land from a breeder's or grazier's point of view applies equally to dairying, and

cows will always milk well on land that will supply other kinds of cattle well. The feeding of cotton cake also works great improvement on grass land of any kind, and in cases where it is so fed it should be seen to that the feeding troughs are moved constantly to different parts of the field, so as to get an even distribution of the good effects.

When a man causes two blades of grass to grow where only one grew previously, he is practically enlarging his farm, as he certainly increases its capacity for carrying more stock, and also improves the quality, as well as the quantity, of his produce. Early spring is the time to apply top dressings to grass land if any improvement is to be visible next summer, and where basic slag or superphosphate or kainite has already been applied, heavy rains will wash them well in, and the land will get a good start, far better than that which is left later, when possibly dry weather may set in, and prevent the action of the manures for a twelvemonth.

W. R. GILBERT.

### Potash as a Fertilizer

GENERALLY speaking, soils are not as likely to be deficient in potash as in the two other elements furnished in commercial fertilizers. There are good reasons for this, as a little investigation will show. In the first place, most soils are better supplied with potash naturally than they are with phosphoric acid. The great bulk of the potash in the soil is not available and is not liable to waste. It gradually becomes available by the disintegration of the soil and is taken up by vegetable growth. The vegetation, if left to itself, decays and returns to the soil the plant food which was used in its growth.

When crops are grown on land and the grain sold, the bulk of the potash is left to the farm in the straw and stubble, but the most of the phosphoric acid is sold with the grain. There is a comparatively small amount of the potash sold from the farm unless hay is sold. Then when cattle, sheep and hogs are sold, a comparatively small amount of potash is sold, while a considerable amount of the other elements of fertility goes with both the grain and animal products.

According to Warington's "Chemistry of the Farm," one thousand pounds of the following animals contain the following:

	POTASH LBS.	PHOSPHORIC ACID LBS.
Fat ox.....	1.84	16.52
Fat sheep.....	1.59	11.29
Fat pig.....	1.48	6.92

The only animal product that is sold from the farm and contains a large amount of potash is wool. Unwashed wool contains four per cent of potash. This would be forty pounds of potash sold in one thousand pounds of wool.

Potash is not so easily wasted as nitrogen, yet it is not as firmly fixed in the soil as phosphoric acid. If there is plenty of potash in an unavailable form in the soil, an application of acid phosphate not only furnishes phosphoric acid, but it also helps to make the potash available.

There is about forty per cent of gypsum in the acid phosphate resulting from its treatment with sulphuric acid. The gypsum is valuable for its effect upon the potash in the soil, and this is probably the reason that acid phosphate alone often gives as good results as an application of both potash and acid phosphate. If there is an actual deficiency of potash in the soil, a fertilizer containing potash will give good results, but actual tests are necessary to determine whether potash is needed. It does not require much extra time to mark off plots in a field to determine whether the potash or the phosphoric acid gives the increase of crop or whether both are needed. If only one is needed to grow good crops, it will considerably lessen the cost of fertilizing, since manufacturers make pretty heavy charges for mixing goods, and if a test shows that only phosphoric acid is needed, the farmer may save both the cost of the potash and the cost of mixing.

A. J. LEGG.

We hope that every FARM AND FIRESIDE family will be represented in the splendid Pony Contest we are now conducting. It is the greatest opportunity you will ever have of getting a fine Shetland pony with cart and harness complete, a beautiful piano or some other prize without cost. FARM AND FIRESIDE'S guarantee of fairness and reliability stands behind the entire contest.

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**WE PAY FREIGHT**

We will send you a sample of our all No. 9 wire fence. You can test it any way you like. File it and see how thick the galvanizing. The "BROWN" will commend itself to you. It is the best. Free Catalog. The BROWN Fence & Wire Co. Dept. 21 Cleveland, Ohio.

**SAMPLE** **FREE**

**Union Lock Poultry Fence**

Square close mesh. Highest quality, superior lock, easily erected, strong, low priced.

Write for new catalog describing the Union Line of Field, Hog, Poultry and Lawn Fences.

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**KEEPS FENCE POSTS FROM ROTTING**

Yellow locust and red cedar posts are now too scarce for fencing. Pine, chestnut, willow—any kind of wood will last twice as long if treated with

**AVENARIUS CARBOLINEUM**

Guaranteed to preserve all wood in or above ground. One gallon covers 300 sq. ft. Freight prepaid. Carbolineum Wood Preserving Co., Dept. 96, Milwaukee, Wis.

**15 Cents a Rod**

For a 22-inch Hog Fence; 15c for 26-inch; 15c for 31-inch; 23 1/2c for 34-inch; 27c for 47-inch Farm Fence. 50-inch Poultry Fence 37c. Lowest prices ever made. Sold on 30 days trial. Catalog free. Write for it today.

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Write us for Booklet showing Hundreds of Designs At all prices. Include iron reservoir vases, settees, fountains, tree guards, stable fittings, etc. Iron fence improves the appearance of your home—is cheaper than wood and permanent. No repairs. Agents wanted.

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## Advice to be Followed

A FARMER in western Illinois writes that he has rented a hundred and thirty acres of land, fifty of which is black sand that will produce nothing but melons and a small yield of rye. He wants to know how to make it productive. A full explanation of this matter would require two or three columns of space in FARM AND FIRESIDE. The best thing he can do is to write Prof. E. Davenport, Urbana, Illinois, a description of this soil, and he will mail experiment station bulletins covering the matter fully. There is considerable soil of the character stated in Illinois, and the experiment station has made a thorough investigation of it and can direct the owners or renters just how to proceed to make such soil productive.

### Plant Trees for Windbreaks

A Minnesota farmer writes that he has been reading my articles in FARM AND FIRESIDE urging farmers to plant trees for windbreaks, posts, etc., and he says he lives on a wide, open prairie and catches the full force of every wind that blows. But he had read in some other paper that trees take up too much valuable land, and the farmer who plants them for the purposes I mentioned would be sorry for it. That good plow soil is too valuable to be wasted in that manner. Then two or three other farmers had told him that he could not make trees live or do any good in his locality. But he has three cottonwood and two soft-maples near his barn that are fully thirty feet high. He asks if he should plant.

I have seen some splendid soft maple, box elder and Russian mulberry groves in just such locations as his in Minnesota. Also fine groves of cottonwood. I would advise him to plant any or all of these varieties, and plant liberally, the coming spring. Prepare the land as for corn, set the trees four feet apart in rows six feet apart and cultivate same as corn. It seemed to me that the box elder was the best grower in bleak locations, so I would set them on the most exposed side of the plantation. Don't plant one or two rows alone, but twenty to forty. Make a good and effective belt on the north, west and southwest of the buildings and yards.

I gave a man who lived on a wide, open prairie in Iowa this same advice sixteen years ago, and he decided to cover five acres in all. Last year he wrote me that he would not take five thousand dollars for his grove. He said he is getting well along in years now and cannot stand the cold so well as formerly, but no matter how hard the wintry blasts came now, it was always comparatively calm about his yards and buildings, and the snow lay just where it fell, instead of being swept into great drifts, and through every crack and crevice in the buildings and sheds, and he could get about and do his feeding in comfort. He said that his example led many others to plant trees about their homes for shade or windbreaks, though none planted so many as he did. But many are now wishing they had. My own experience, as well as that of many others, shows plainly that no man who ever planted a good windbreak or grove has ever regretted it.

### An Ex-Teacher's Wood Lot

I have word from an ex-teacher, who tells me he first wrote from West Virginia in 1884 about planting shelter belts, and was so impressed with the advice I gave him that he went direct to a farm he had bought in Iowa and made arrangements with his tenant to plant twelve thousand trees within the following years. He says now that it was the best thing he ever did. When he quit teaching and went to live on the farm, twenty-two years later, he discovered that the farm was noted far and near for the beautiful grove, and that a great Sunday-school picnic was held in it every year, besides many society, fraternal order and other smaller ones. As he knew very little about practical farming, he offered the farm for sale to the highest bidder. Nearly fifty men bid on it, and the price received was fully forty dollars an acre above the "going price" of farm land in that locality. Everybody seemed to want that grove.

For over thirty years I have been advising and urging farmers to plant groves and shelter belts, and hundreds have done so, and I have yet to hear from one who ever regretted following my advice. Within the past six years the government has issued several bulletins from the Agricultural Department giving instructions in the matter of planting, and varieties of trees adapted to different sec-

tions. These bulletins can be had by application to the Agricultural Department at Washington, and the instructions in them can be followed with fairly good results, though the advice generally is to plant the trees much farther apart than I would. I strongly favor close planting, with liberal thinning as needed. And all who do this will not be disappointed.

A farmer in Indiana writes me that he has two good boys, one sixteen and the other eighteen years of age, and for the past three years they have been his "right-hand men," but he thinks, from the bits of conversation between them that he overhears, that they are planning to leave the farm soon and seek their fortunes elsewhere. He asks what he shall do to keep them. Evidently the boys are dissatisfied with the way he is treating them. I judge from his letter that he is "putting them through the mill."

Now, boys will stand a good deal—that is, boys who have been properly trained—but if they are plainly and constantly imposed upon they will rebel sooner or later. Thousands of boys have been driven from the farm by unfair treatment. Very few farmers seem to remember that boys are growing and require different treatment from men that are grown. They cannot stand the four-o'clock-to-nine-o'clock grind that many farmers seem to think is the right sort of caper on the farm. They require a whole lot more sleep than grown men, and if they don't get it they do not develop right. They also need some time to just do nothing but look about, and potter over things they are investigating. If they are constantly pushed to the limit they either fly the track or go down and out.

### Give the Boys a Square Deal

Give the boys a chance to grow. They can do a whole lot of work without being hurt in the least, provided they have all the sleep they need as growing animals. Then give the boys a square deal; don't take all and give nothing back. Make them partners. I believe it is a better plan than to pay them wages. At the close of the year give them a fair share of the net receipts. They have done the work of hired men, much better than most hired men would do it, and they are entitled to the pay of hired men, less the amount paid for clothes, etc. Don't pay them wages, but give them a portion of what the farm has yielded. You are all working the farm together. If the season proves good, the farm should yield a good income, and the boys should have a fair slice of it. If the season is poor and yields light, they know it as well as you, and they will expect less. Be fair, and treat them as you would like to be treated, and they will respect you all the more, and all ideas of seeking their fortune elsewhere will vanish. When boys are sure they are going to have a portion of the crop they are intensely interested in that crop, and will do all they can to increase the yield. If they are to have no share of it, naturally they have very little interest in it. Give the lads a square deal and you will not lose them.

FRED GRUNDY.

### Notes on the Farm Wood Lot

IN THINNING the wood lot it is best to leave no large openings, for the sunlight streams through them, drying the soil and encouraging the growth of grass, which should never be suffered to replace the spongy humus that forms the natural top layer of soil in a healthy forest. A crown canopy, formed by the leaves and branches, should always shade the forest floor. Too much light encourages the formation of branching, short-stemmed trees.

The young growth should be spared as much as possible in felling and hauling the logs, as reproduction must not be forgotten. If the seedlings are given a chance they will grow into saplings and poles. Saplings and poles are already valuable, and a little later are themselves grown trees. All cutting should not be done in one spot just because it is a trifle more convenient to do so. By taking one tree here and another there, where it can best be spared or is actually better down, just as much wood will be secured, and at the same time the future supply will be drawn upon as lightly as possible.

Wm. H. UNDERWOOD.

The most extraordinary flower offers ever made by FARM AND FIRESIDE or any other publication are on page 38 of this number.



**"THIS IS  
THE ROOFING  
THAT NEEDS  
NO PAINTING"**

THERE was a time when everybody bought roofings that required painting. It was the regular thing to do. In fact there was nothing else to do, for all roofings were "smooth surfaced" and required painting regularly to keep them from deteriorating.

Now there is Amatite, an improvement over painted roofings, having a real mineral surface imbedded in pitch—making a kind of flexible concrete.

This mineral surface needs no painting. The waterproofing material, Coal Tar Pitch, is the greatest enemy to water known. It is the base of many waterproof paints. Only in a paint the pitch is diluted and made into a thin film, whereas the Amatite waterproofing is solid pure Pitch—two layers of it. It would take something like a dozen coats of pitch paint to equal in thickness that upper sheet of pitch in which the Amatite mineral surface is buried. And under that heavy sheet of pitch is a layer of wool felt and under that another sheet of pitch, just as thick as the outer one. And below them all is another layer of strong felt. That makes two roofs in one.

other layer of strong felt. That makes two roofs in one.

If the storms wore away the mineral surface and dug through the pitch and destroyed the felt, they would still be only half way through. And if the weather then removed the next sheet of pitch, you would still have left a final layer of felt—nothing more or less than an ordinary smooth surfaced roofing which could keep off the rain very nicely if painted every year or two.

But as a matter of fact, the weather never gets past that mineral surface securely gripped in its matrix of pitch.

The mineral surface is there to stay. No painting—no bother—no further expenses after the roof is once laid.

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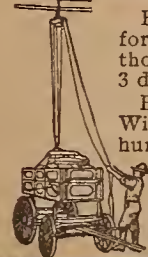
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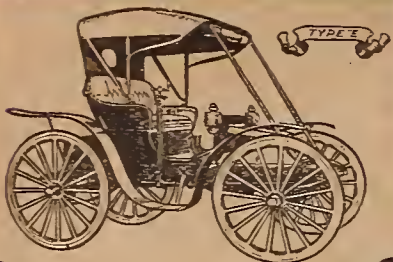
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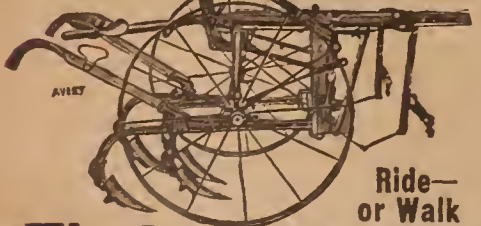
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## Review of the Farm Press

### What Others Are Saying About Important Farm Matters

#### Kinds of Fertilizers

FERTILIZATION is as essential to the soil as feed to the animal. Nature must be restored. There are many kinds of fertilizers offered to farmers. Some of these fertilizers are the by-products of some industry and are frequently so bulky they cannot be shipped long distances. Among these fertilizers are a number of organic manures which are capable of yielding nitrogen. In most cases their purely manurial value is of less importance than their mechanical action on the soil; frequently the plant food they supply could more cheaply be obtained by the purchase of the more familiar mineral fertilizers.

Their mechanical effect in improving the condition of the soil often gives them a far greater value than an analysis can show, particularly for use on light soils. Mere richness in plant food is not everything; the soil needs to contain a certain amount of organic matter (humus) if it is to be really workable and thoroughly fertile. By the addition of bulky organic manures light soils are rendered more retentive of moisture and plant food, and stiff soils are made more open.

When barn-yard manure is plentiful there is little need to trouble about other organic manures, but where a substitute has to be found, these manures may sometimes fill the place, particularly if their deficiencies are rectified by the use of mineral fertilizers at the same time. The chief drawback is usually the question of price. There may be a tendency to charge too much, and to value the constituents too highly with the quality not always uniform. An analysis is, of course, very desirable before buying large quantities, but this cannot always be so readily obtained, on account of the difficulty of getting a representative sample. Still, the mechanical condition counts for a good deal, and the shrewd purchaser should not go very far astray if he pays attention to this. Some of what may be termed miscellaneous organic manures are dried blood, feathers, hair, horn, shoddy, etc., fish manures, poultry manure, sewage manures, etc.

Speaking of poultry manure, this fertilizer is not generally valued highly enough upon the farm. If well stored it is very valuable farm manure, little inferior to a good guano. It is strongest in nitrogen, though it contains some phosphates and a little potash. Samples vary very much, according to whether they contain much litter and whether they have been well saved. The best poultry manure consists practically of droppings alone in a fairly dry state, but too often the droppings are raked up with a lot of litter and left in a heap in the open. Such treatment results in the loss of much nitrogen in the form of ammonia. The best method is to dry the droppings by spreading them out in a thin layer in a shed before placing them in barrels or bags; but as this cannot always be done, the next best plan is to heap them up in a dry shed or put them straight into barrels. Another good plan is to mix with soil when the droppings are fresh.—H. B. Swain in Journal of Agriculture.

#### Meals for Dairy Cows

OIL meal is one of the most healthful feeds that can be used in a ration for dairy cows. There is some difference of opinion as to which form is the most desirable for feeding, the ground or the nut. When finely ground it is likely to settle in the bottom of the feed pile, which does not follow in the case of the nut form. In short, oil meal possesses these three advantages: It keeps the digestive system in tone; gives palatability to the ration, causing large quantities of feed to be consumed; and is one of the main feeds for increasing the protein content of ordinary farm rations. From two to three pounds a day for dairy cows from date of calving to the middle period of lactation is a common amount, and when this is reduced gradually with the falling away of milk, nothing but the best of results can follow to the cow and the character of her product, either milk, butter or offspring.

The use of corn-and-cob meal for feeding dairy cows is growing more popular each year. It has been maintained by some that the cob of the corn when ground supplied only so much worthless, indigestible matter and was of no advantage in the ration. On the contrary, it has been discovered that such meal has a distinct feeding value, besides giving desirable bulk to the ration, and in that way partly supplanting bran. Corn meal

or ground corn in itself is heavy, and grinding it with the cob lightens it in a satisfactory fashion for most dairymen.

Corn-and-cob meal and wheat bran are quite the opposite in character of nutrients. The former is high in carbohydrates, having a nutritive ratio of about 1:15, while wheat bran is one of the highest protein carriers available for a dairy ration, having for every one part of protein less than four of carbohydrates. It is, therefore, not possible to say whether one is as good or better than the other; each has its place in the ration—the one is by far the best to furnish protein and the other by far the best to furnish carbohydrate matter. Thus they combine well in giving balance to a ration.—The Homestead.

#### Barley as a Nurse Crop for Alfalfa

WE HAVE tried both oats and barley as a nurse crop, and have sometimes succeeded with oats, but more frequently failed. The oats stool out more vigorously than the barley does, shade the young plants too much, and are much more inclined to lodge. Furthermore, we find it almost impossible to get farmers to do as we tell them, seed the oats very light and cut them for hay, both of which are absolutely necessary if you hope to succeed with the alfalfa. Occasionally they succeed even where they sow the oats thick and cut them for grain; but more frequently they fail.

Beardless barley seems to make an ideal nurse crop. It makes very little shade, grows only about the same height as the oats, and matures its grain about the middle of July, some times earlier.

Ordinarily, even with this grain, we cut the crop for hay when the barley is in the dough stage. We find that this feed compares very favorably with any forage that we grow, even with the alfalfa itself. We feed it to all kinds of stock, and they relish it and do very well on it. It is not a balanced ration, and clover or alfalfa must be fed in connection with it.

We sow from one to one and one half bushels of the barley to the acre at oat-seeding time, and sow at the same time twenty pounds of alfalfa seed. Preparation of the soil must be thorough for the alfalfa. We find that in this state (Ohio) alfalfa sown with the beardless spring barley gets a splendid start the first year and goes through the first winter in good shape; whereas, later seedings may strike such dry weather that either the alfalfa will make a very small growth before winter, or in some cases, as last year, it will be so dry that it will not even germinate the first year.—Chas. B. Wing in The Rural New-Yorker.

#### Pruning the Cherry in Transplanting

A CORRESPONDENT writes that a number of cherry trees which he planted in spring, and which he pruned according to directions, all died; and a friend assured him that the loss of the trees was consequent on the pruning, and he asks if this can be correct.

As a rule the cherry, both the sweet varieties and the acid, requires less pruning than all other fruit trees; generally none at all after the tree is fairly established in its new quarters. But in transplanting, cutting back is required, just as with any other tree. The reason of this is the check of transplanting and the loss of more or less roots in taking up.

The top has to be cut back in order to restore the balance between the top and the roots. If all the top is left on the young tree, the many buds which will come into leaf will make a greater draft for moisture than the mutilated roots can supply. Under these conditions a cherry tree is just the same as an apple tree or a pear tree, and judicious pruning is necessary. And spring is the right time for this, whether planting is done in spring or in fall.

The cause of the failure of these cherry trees was undoubtedly not the pruning, but something else. The trees may have been too long out of the ground. Or the nurseryman may have fumigated them on account of San Jose scale, and overdone the work, spoiling the roots while the stems of the trees seemed all right. Or the planting may have been done carelessly. Or mulching, after planting, may have been neglected, and when the dry time came the trees perished for lack of moisture. At all events, the injury did not come from the pruning.—The National Stockman and Farmer.



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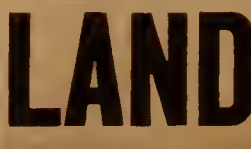
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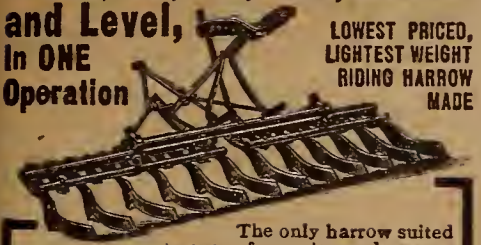
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### Cream

Hand-separator cream produces better butter than that separated by any other method. The deep can surrounded by cold water is second best; pans and crocks are third best, and the water-dilution method comes last.

The cream should be kept in as nearly a sweet condition as possible until enough has been gathered for a churning. This should then be soured or ripened. To ripen the cream warm it to a temperature of seventy-five to eighty degrees, until it is sour enough; then cool down to a temperature of from fifty-five to sixty degrees, which is right for churning. Let it stand at this temperature for an hour or so before churning, if possible. This will cause the butter to come in better condition. Cream that is being ripened should be thoroughly stirred several times before it is ready for the churning process.

It is often advisable to save some of the buttermilk of one churning to be used as a starter (the same as yeast in bread making) for the next batch of cream. Add a small amount of this buttermilk to the sweet cream when enough has been gathered for a churning; thoroughly stir it, and it will ripen very much more rapidly. Care should be exercised to keep this old buttermilk in as good condition as possible.

### Temperature

One of the main causes for having to churn from one to five hours is either too warm or too cool temperature of the cream. With a temperature of from fifty-five to sixty degrees, butter should be produced in from thirty to forty-five minutes, providing the other conditions are right.

### Churning

Strain all cream into the churn. This will remove all clots and particles of curd, and there will be no danger of white specks in the butter. Do not fill the churn over one third to one half full. Give the cream room for agitation, which insures quick churning. Turn the churn just fast enough to give the cream the greatest amount of agitation.

### Coloring

In order to make a uniformly colored butter for the entire year some color must necessarily be used. Very little will be required during the spring and summer months, when the cows are getting green feed. Colored butter is not only more appetizing, but can be sold on the market for a very much better price than that which is not colored. The color should be added to the cream in the churn before starting to churn.

### When to Stop Churning

The butter should be gathered until the grains become about one half the size of wheat. Then draw off the buttermilk through a strainer, and wash the butter in cold water two or three times, or until the wash water is removed practically clear. In washing, care should be exercised not to bring the grains together in one mass, but rather keep it in the granular condition. The washing of the butter removes the buttermilk and makes the butter keep for a longer time. It also puts it in better condition for salting.

### Salting and Working

The butter should be taken from the churn in the granular condition and the salt sprinkled over it before it has been worked together. Usually a scant ounce of salt is added for each pound of butter.

Once working, at the time of salting, is usually sufficient, providing the butter is hard enough when removed from the churn. If the butter is somewhat soft when taken out, it can be salted and set away for a few hours until it gets hard enough to finish. Butter is usually worked enough when the water has been removed so that it will bend without breaking. Too much working will spoil its grain and make it salty, while leaving too much water in it will spoil its keeping qualities.

### Packing

Pack or print the butter as soon as it has been worked sufficiently and put it in a cool place until it is taken to the market. Remember that the appearance of the package, as well as the way the butter is packed, has a great deal to do with the selling price.—H. M. Bainer in Colorado Agricultural College News Notes.

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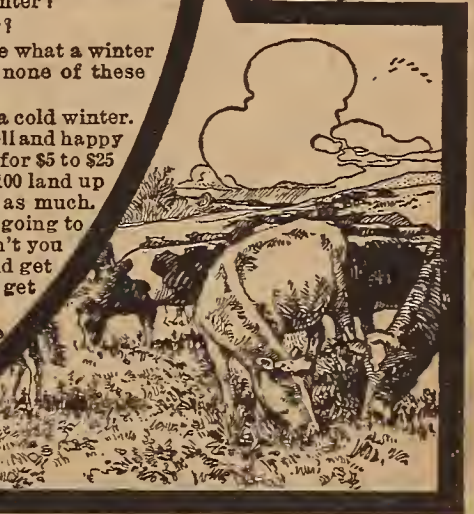
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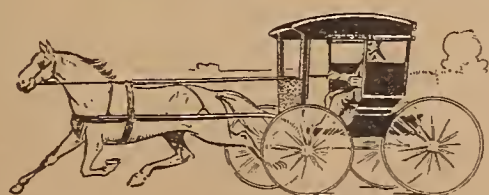
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## What's Wrong With the Farmer?

**L**AST month President Roosevelt transmitted to Congress the report of the Country Life Commission. Let us briefly consider its most striking features. But first throw away both that pseudo optimism that visualizes Robin Hood as a religious gentleman instead of a gallant robber, and that dour pessimism that sees the hole and not the doughnut around it. Then let us look at the doughnut.

In the summary of their report the commissioners give us a clear view of the existing conditions of country life just as they found them after careful investigation. Here is what they say, crisp and crisscrossed:

"The commission finds that agriculture in the United States, taken together, is prosperous commercially, when measured by the conditions that have obtained in previous years, although there are some regions in which this is only partially true. The country people are producing vast quantities of supplies for food, shelter, clothing and for use in the arts. The country homes are improving in comfort, attractiveness and healthfulness. Not only in the material wealth that they produce, but in the supply of independent and strong citizenship, the agricultural people constitute the very foundation of our national efficiency. As agriculture is the immediate basis of country life, so it follows that the general affairs of the open country, speaking broadly, are in a condition of improvement.

"Yet it is true, notwithstanding all this progress as measured by historical standards, that agriculture is not commercially as profitable as it is entitled to be for the labor and energy that the farmer expends and the risks that he assumes, and that the social conditions in the open country are far short of their possibilities. We must measure our agricultural efficiency by the possibilities rather than by comparison with previous conditions. The farmer is almost necessarily handicapped in the development of his business, because his capital is small and the volume of his transactions limited; and he usually stands practically alone against organized interests. In the general readjustment of modern life, due to the great changes in manufactures and commerce, inequalities and discriminations have arisen, and naturally the separate man suffers most.

"The disadvantage or handicap of the farmer as against the established business systems and interests, prevents him from securing adequate returns for his products, deprives him of the benefits that would result from unmonopolized rivers and the conservation of forests, and deprives the community, in many cases, of the good that would come from the use of great tracts of agricultural land that are now held for speculative purposes."

There's the real doughnut. Look at it. Too much hole for the quantity of cake, is there not?

\* \* \*

The commission has a clear conception of the fundamental wrong in rural life and enterprise. President Roosevelt also expresses it tersely in his special message transmitting the report. He says:

"Farming does not yield either the profit or the satisfaction that it ought to yield and may be made to yield. There is discontent in the country, and in places discouragement."

Referring to the work of the commission, he says:

"It wishes to bring not only the farmers but the nation as a whole, to realize that the growing of crops, though an essential part, is only a part of country life. Crop growing is the essential foundation, but it is no less essential that the farmer shall get an adequate return for what he grows.

"Three great general and immediate needs of country life stand out:

"First, effective co-operation among farmers, to put them on a level with the organized interests with which they do business.

"Second, a new kind of schools in the country, which shall teach the children as much outdoors as indoors, and perhaps more, so that they will prepare for country life, and not as at present, mainly for life in town.

"Third, better means of communication, including good roads and a parcels post, which the country people are everywhere, and rightly, unanimous in demanding."

The country people unanimously demand a parcels post. Why don't they get it? Is Congress controlled absolutely through its Aldriches and Cannons by the "organized interests and business systems?"

\* \* \*

As the main special deficiencies of country life the commission names the following:

1. Disregard of inherent rights of land workers.
  - (a) Speculative holding of lands.
  - (b) Monopolistic control of streams.
  - (c) Wastage and control of forests.
  - (d) Restraint of trade.
2. Highways.
3. Soil depletion and its effects.
4. Agricultural labor.
5. Health in the open country.
6. Woman's work on the farm.

In brief, taking the whole country into consideration, the chief cause of the deficiencies in rural life is poverty—poverty due to stealing. Lacking sufficient co-operation and organization to protect themselves against the trade, transportation and financial interests cunningly organized and combined against them, farmers as a body fail to hold a fair share of the wealth they produce. That's why, among fundamental needs at the present time, the commission recommends:

"A thoroughgoing investigation by experts of the middleman system of handling farm products, coupled with a general inquiry into the farmers' disadvantages in respect to taxation, transportation rates, co-operative organizations and credit, and the general business system.

"An inquiry into the control and use of the streams of the United States with the object of protecting the people in their ownership and of saving to agricultural uses such benefits as should be reserved for these purposes.

"Careful attention to the farmers' interests in legislation on the tariff, on regulation of railroads, control or regulation of corporations and of speculation, legislation in respect to rivers, forests, and the utilization of swamp lands."

\* \* \*

Whenever and wherever farmers can get adequate returns for what they grow, can hold what they earn, life in the open country will bound upward to a plane that will need no commission to study means for its betterment.

It is estimated that out of every dollar paid for farm products by consumers, farmers get only thirty-five cents. Let us suppose they could get even as much as fifty cents out of each dollar. Why, it would almost represent the difference between poverty and opulence. Then country people could afford, and would have, better roads, better schools, better homes, better sanitary conditions, better health, better social conditions and better everything else that concerns rural life. And they are going to get them.

"He that is robbed, not wanting what is stolen, Let him not know it, and he's not robbed at all."

Ah, but they now want what is being stolen, and are all coming to know that they are being robbed.

The future welfare of the whole nation demands that restraint of trade shall be immediately superseded by restraint of the modern Robin Hood plunder-bund—that genteel band of outlaws

"Who steal the goose and give away the giblets in alms."

## Random Sparks

Let's hope that what we've read during the long winter evenings has given us some new light of the problems of the coming years and some new hand hold, so to speak, by which we may climb to a higher life.

\* \* \*

Gold is in sea water, but it cannot be got out profitably. There is no gold in the snow that now lies on the ground, or the rain that will pelt down before the weather warms up enough for planting, but if the soil has been loosened by fall plowing, and the frost has crumbled it, and the dark humus clutches the moisture fast, and a dry dust mulch defends it against the thirsty winds of summer's drought, it can be turned into gold, and no locus-pocus of magic, either.

## Back Talk to Lewis

## Letters From Readers

EDITOR OF FARM AND FIRESIDE:—

I'm well pleased with your paper. Would think more of it if you would drop that political page and in place give a remedy for "punkin" bugs.

Michigan.

O. E. RITTER.

EDITOR OF FARM AND FIRESIDE:—

Mr. Editor, don't you think it about time to call Lewis down? He is making our people think that the greatest need of this country is honesty and fair play. If he doesn't let up soon, he will ruin our old political parties, and knock a lot of politicians out of their job.

Ohio.

W. D. MERCER.

EDITOR OF FARM AND FIRESIDE:—

I think Alfred Henry Lewis' political articles are worth more to me than all else in your paper. . . . Lewis knows who is running this government, and the people ought to, farmers especially. I hope you will continue the contributions from Lewis.

Kansas.

REECE H. JONES.

EDITOR OF FARM AND FIRESIDE:—

I am very much taken by Comrade Lewis' Politics. Tell Alfred Henry to keep a-going. He is hitting the spot. I am almost persuaded that he is a Socialist, anyhow. I believe a wholesome fear, by the old parties, of the Socialist movement will be a good thing for the people.

LOWELL S. OLDHAM.

EDITOR OF FARM AND FIRESIDE:—

Some single talks of Mr. Lewis on political rot are worth a whole year's subscription. I hope this will be kept up. I read one man's letter of disapproval. I don't see what he was thinking about. I, for one, like to see such graft and rot exposed as is done in some numbers. It may wake the people up if kept before their eyes, so they will put their feet on it. With best wishes for your success, I am,

Michigan.

G. W. DIETRICH.

EDITOR OF FARM AND FIRESIDE:—

I have been a reader of your paper most of the time for the past twenty-five years, and have always prized it as among the best of our agricultural papers, but I believe you are making a grand mistake by introducing politics to its columns, especially by one who uses such rebukes against our national officers as Mr. Lewis does. If we have such a corrupt and rotten government as Mr. Lewis pictures it, why is it that all foreign nations come to us for assistance. When foreign nations are in trouble and want a sound adviser, Uncle Sam is asked to help arbitrate it. If we have such a corrupt set of thieves at the helm of our national government, why do they do this? . . . We no doubt have some corrupt men in office, but this is a big country, and there are a great many things to look after, and it would be strange if all was harmony and perfection. But let us not be chronic grumblers.

Ohio.

E. F. WETMORE.

EDITOR OF FARM AND FIRESIDE:—

I am glad to see that you have devoted one page of your valuable paper to the comments on political topics by Henry Lewis. This is to me one of the most important features of your paper. Some think it is not appropriate to a farm paper. I think it is, for the moneyed oligarchy are farming the farmer. There is only one exception I make to his views—to something in the article on the panic. Who and what caused the panic? He was right in saying it was the moneyed oligarchy. They brought on the panics of 1873, 1903 and 1908. He was wrong in one point, when he said politics had nothing to do with it. It was national legislation that gave them power to bring on a panic whenever they pleased. The government surrendered its prerogative to issue money and regulate its volume, therefore giving to the bankers power to bring on an industrial depression whenever it suited their sweet will. Tell him to go give them hot shot and shell.

West Virginia.

G. W. BEAUMONT.





# Politics

By Alfred Henry Lewis



THE OTHER DAY, OUT IN SHADELESS, SUNBURNED, but no less alluring Arizona, there died a man. He was a man worth reading about; since while only forty-nine and for a decade dying of consumption, he had illustrated in his life what courage, honesty, backed by an average sound intelligence can do, and shown us that opportunity has not perished from the American earth. I am supposed to write this page for the political uplift of mankind, and what for the end in view should prove a better lesson leaf than the story of one who, dying in middle manhood, has still politically succeeded—succeeded on right lines, too, without the help of pedigree or pocketbook and in the teeth of predatory money. The victories of such are the victories of the people, and the people should read of them, study them, that they may be repeated.

His name was John Brown Moran. In build light, of a slight, bony figure, no sculptor would have asked him to pose for an Apollo. In dress careless, D'Orsay would not have countenanced him. Brummel would have refused his bow in St. James. His brow was high, his hair a failure, his nose heavy, his eye daring, his mouth firm, his jaw a good foundation for a face wherein enterprise, originality, force, honesty, purpose, and a practical wit which dealt with the world on all fours, were strongly declared.

Moran cared nothing to be rich, and had he lived a century would never have taken his seat among the millionaires. Yet he was ambitious; he liked power—not to use badly, but to use. He was humane, and sympathized with that under dog of earth—the poor man. The sympathy was genuine to the point demagogic. It was therefore to be watched, lest it carry its owner into forgetting the rich man's pound in remembering the poor man's penny. Sometimes such as Moran, with best intentions, overturn a boat in efforts to bring it safe ashore.

It is likewise such who are the sheet anchors of a republic. Those who think most clearly, reason most coldly, are not always the best executives, and the heart is often wiser than the head. Even justice may be misplaced, and mercy makes a good North Star.

\* \* \*

DURING THE YEAR OF GRACE in 1859 there dwelt in Wakefield, Massachusetts, John Moran, mechanic, and Ellen, his wife. The two had come from Ireland in quest of a broader, better freedom than they left behind. Also, in that year they gave a great evidence of their love of liberty and its sincerity.

Men in remembering a present are prone to forget a past, even their own pasts, and states are much like men in that behalf. Massachusetts, now when black freedom is a fashionable and accomplished fact by fiat of one in a slave state born and bred, is wont to complacently plume herself as having rocked the cradle of abolition.

This is a wide shot from actual truth. Massachusetts had her abolitionists in 1859, as had Ohio, New York and many another commonwealth. But they were feared as firebrands, denounced as foes to public order, loathed as of the vulgar herd by polite folk who held their noses high. Lincoln was being reviled by Greeley, despised by Sumner, pictured by "Harper's Weekly" as an ape. In Boston the life of Wendell Phillips was being plotted against, and Governor Andrews was refusing him the protection of the law. Out in Concord the local clergy were striving to prevail on Henry David Thoreau to forego an intended eulogy of "Ossawatimie" Brown.

Folk forget these things, just as they forget how the "Mayflower" herself—there being no more Puritans to bring over—lapsed into the slave trade, and that an abolition North was only brought to abandon black slavery, and give its morals a chance, by blundering upon a golden secret of the factory and the field, to wit: "It is cheaper to hire labor than to own it."

In 1859 "Ossawatimie" John Brown went planning those Harper's Ferry deeds of bloodshed and sudden death, which had for their purpose a servile insurrection and for their punishment a scaffold. John Brown was at that time execrated—feared here and hated there—by nine tenths of American men, and nowhere more than in money-making, profit-loving Massachusetts. Even those, who held that he was traveling in a right direction, said he had gone too far.

And yet the Morans—our freedom-hunting pair from Ireland, with the Celtic readiness to overlook a method in admiration of a motive—revered the grim old liberator none the less; and one day, to the scandal of a Wakefield sense of property and defying it, named their boy, just born, "John Brown Moran." Before

If you don't agree with Mr. Lewis, "talk back" to him, confining your reply to two hundred words. We shall hope to publish some of these replies from time to time.—THE EDITOR.

the name could become a handicap, however, old Brown had from a murderer grown to be a martyr, and young Moran was never made by reason of it to suffer set back.

\* \* \*

AS A BOY, young Moran went to the Wakefield schools, and from them to the Boston University. On the back of his school days he studied law and issued forth a lawyer. In his law practise Moran was peculiarly the poor man's lawyer, and by consequence the banks were never overtaxed in keeping track of his deposits.

Every young gentleman of the bar has much unoccupied time on his hands. Moran filled in his idleness with politics. Being honest, the more Moran considered party conditions, the more he distasted them. Being Irish, the more he distasted them, the more he felt like making war upon them.

Predatory money and its creatures, the black-flag corporations, had for long been in Bay State control. Some wisacre named Bryce said recently that the cities are the hope of democracy. He might have added that they are also the hope of the machine, of the boss, of predatory money. The city is as naturally the lair of bandit corporations as the rock ledge is the natural lair of rattlesnakes. These brigands found Massachusetts—polka dotted of factory-bred villages and towns and cities, with their bristling phalanx of smoke stacks. There they set up their kingdom.

\* \* \*

MASSACHUSETTS POSSESSED TWO PARTIES. But the corporations took charge of both, and gave to each a boss. While in apparent opposition, the parties and the bosses never really disagreed. It was as though one were on shipboard, with Massachusetts as the ship. The Republican party was the starboard watch, the Democrat party the port watch. Back in the captain's cabin sat the corporations.

Moran belonged to neither watch. From the first he showed himself a mutineer, a trouble maker. He had no reverence for bosses, no fear of machines.

Being a kind of Thomas Jefferson with just a dash of Jack Cade, Moran was the particular horror of that prim Brahmin caste which would sooner respectably drown than be succored unseemly. Those austere ones of dignity and severe propriety who based themselves on the "Mayflower," and regarded Plymouth Rock as the beginning of all earthly things, could not afford to be saved by any restless Wakefield one, whose immediate forebears had "come over" not sixty years ago. Their burden was great, their bondage sore; but better a Pharaoh of the corporations and bricks without straw than take to the honest deserts with such a Moses.

There were others, however, who did not go chained to Plymouth Rock. These, being free, and hampered of no "Mayflower" heretofore, gave ear to Moran exhorting mutiny. They were eager to follow him, and said as much: what they waited for was opportunity.

\* \* \*

THE LATTER CAME. Moran offered himself for prosecuting attorney of Suffolk County—that is to say, Boston. Never did movement of politics present a more mean and starved appearance. Moran had no money, no pedigree, no party, no papers, no halls, no music, no committee. But there in the arena he was, telling the people that if he were victorious he would put rich rogues in jail.

Since it made no machine difference, the bosses decided to unite on a candidate for prosecuting attorney. They would not divide their criminal strength with two candidates.

Thus reasoning, thus fearing, the bosses named a certain Mr. Sughrue. This gentleman was on both the Republican and Democrat tickets. He was backed by the corporations. He was upheld by the papers. He had music, speakers, halls. Also, when the votes were in, he had 38,157; while Moran counted 42,198. Moran was elected, to the amazement of the Brahmins and the joy of the herd.

\* \* \*

MORAN AS DISTRICT ATTORNEY did divers notable things. There arose—the Ubero swindle, wherein the Beacon Trust Company—a corner stone of the financially

"respectable"—was involved. Moran lighted the lamp of inquiry and went to the dark center of it. The bank commissioners of the state had failed in their duty. High names were mentioned—General Brigham and others. Moran spared no one. He demanded of Governor Guild that the purblind—or worse—bank commissioners be removed. The governor hesitated, and then threw himself upon the legislature. The legislature hesitated; but being squarely brought to bay, the commissioners were removed.

An eminent quintette of hostellers—the Adams, Youngs, Parker, Esscx and Touraine hotels—were pleasantly engaged in violating the excise law. They connived with unlawful screens to secure their patrons from observation while tossing off their toddies.

Bay State feeling demands that he who is drunk shall be publicly drunk, to the end that he be despised, and thereby reformed. Moran enforced the law, revoked the licenses of the "screened" hotels, and it cost them each and severally a painful twenty-two hundred dollars to have the same renewed.

\* \* \*

SPEAKING OF THE LEGISLATURE, that body of lawgivers had Moran troubles of its own. Until a Moran day it had taken its bribes, untroubled of conscience, unscared of justice.

The bucket-shop bill was up, and the threatened bucket shoppers came with their money as of yore, and the lawgivers as of yore received it. One Simon Swig, member for Taunton, new at once to the legislature and the largesse of the bucket shops, was, however, so unparliamentary as to say that he had been offered a bribe.

Moran sent his process servers to bring the entire membership before the grand jury. Indictments were on their way; there befell a deal of legislative rushing to and fro. It looked as though a majority might hold their next meeting in the penitentiary.

Just as folk dig cyclone cellars in Kansas, so years before a prudent legislature—not knowing what its stormy needs might be—had said in a law that any man brought before an investigation committee of either house as a witness should therefor and thereafter be and remain immune from criminal prosecution, based upon whatever subject matter had been under investigation. A thoughtful member called the frenzied attention of his fellows to the refuge of this statute.

They, the members, found in it the shadow of a great rock in a weary land. Immediately they appointed a committee to "investigate" the charges of bribery. The committee instantly subpoenaed every member of the legislature to be a witness, as well as several criminals who were not members.

Thus was the mantle of that saving statute dexterously thrown across every threatened shoulder. Thus was Moran baffled and each bribe criminal made immune.

Moran went after the Chelsea Board of Aldermen, in the name of "graft," and indicted three of them. He trained his grand-jury guns on the ice conspirators, and brought down with his indictments seventeen individuals and eleven scoundrel companies.

These and more Moran accomplished as district attorney; while against him were working the governor, the legislature, the police, and what other forces live beneath the thumb of the machines and what black corporate influences dominate them. What might he not have done with health and strength and twenty years of life!

\* \* \*

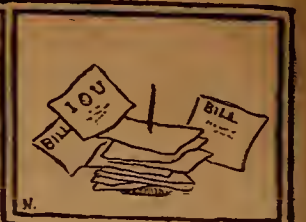
ABOUT TWO YEARS AGO I called upon Moran in his offices in Boston on Pemberton Square. This is how he looked upon politics. Said he: "Both state and nation need the services of independent men—independent alike of a coarse lobby influence and the more subtle, yet no less dangerous, social and political influence of strong corporations and our high financial magnates. Men who are veritable slaves to the latter pose as honest. Yet all their official service is a betrayal of the people. What is the remedy? The people must compel officials to recognize that they are servants of the public, that their obligation is to the people alone, that betrayal of popular interest is a treason which must be answered for. Public opinion must be aggressive to drive out of public life officials who fail, corruptly or as the result of a vicious environment, to realize their obligations to serve unselfishly and well. The financier who steals a gas company or a railroad by the familiar wrecking and receivership process must be sent to wear the stripes as well as the crazy victim of a mania for picking pockets."





# The Soul of Honour

By Lady Troubridge



## CHAPTER XIII.

HE KNEW that his last chance had gone, and he began faintly to suspect that his indifference, his disdain of the other man, had been a mad folly which was going to cost him dear. He had imagined in his idiocy that he was going to mold the granite nature of the Australian, as he had molded the loving one of the woman who had trusted him, and now he had found out his mistake. What on earth was he to do?

There was only one course open to him, and that was another personal appeal to Lord Vannister, and from that he shrank with an infinite loathing. Yet it would have to be faced, there was no other way, and setting his teeth he turned into a telegraph office and despatched a wire announcing his arrival on "business." It was highly probable that a wire would arrive before he had started, bearing with it some excuse; but in that case he determined to ignore the counter order, and to pretend that he had not received it. Anything to avoid the postponement of this hateful meeting, which he knew must take place.

Between him and Lord Vannister there existed a deeply rooted dislike, which had its origin in contempt on the one hand, mingled with harshness and resentment on the other hand.

In the beginning, when continued ill health and a fixed determination not to marry had made Lord Vannister face the fact that in all human probability this young cousin of his would be his eventual heir, he had tried to take a genuine interest in the boy, and to make the best of him; inviting him to pay long visits to Gartlands, and studying his character with that penetrating insight of his, which had circumstances been different, would have made him a born ruler of men. The result was a keen and bitter disappointment. Gradually he saw that in spite of boyish charm, animation and high spirits, there was in Marcus a strain of insincerity amounting to veritable deceit, a strain, too, of heartlessness, greater even than that natural callousness which is allowable and natural in boyhood, while all those fine and sterling qualities for which he eagerly watched were conspicuous for their absence.

Clever as he was at reading character, he had not found this out at once. Years had elapsed during which Vannister had hoped that things would better themselves as the lad's character formed. He had come of a good, clean, wholesome, high-minded stock. Why should he not take after them? It was long before certain episodes in the boy's career, which came to his guardian's ears, forced upon him the conviction that as the twig is bent, the tree is inclined.

When school life for Marcus was a thing of the past, Vannister put him into a good regiment, trusting that the association with right-minded men and the discipline of the army would succeed where he himself had failed, and for a time Marcus improved visibly, and the heart of the disappointed man, watching his career from afar, lightened.

He made him a liberal, but not an extravagant, allowance for a cavalry regiment and informed him that he expected him to manage on it; but only a few months elapsed before a shower of bills poured in from tradesmen to whom the name of Vannister carrying with it its great, almost unlimited credit had been given. That in Vannister's mind was the beginning of the end, succeeded as it was by scene after scene in which promises were made and invariably broken.

Then for the first time he began to consider the position, and to realize what he had done in entailing his vast estates on a spendthrift and a ne'er-do-well. True, it was only in the event of his dying childless that this would come to pass, but that event in his own mind was a certainty, for the years, as they stole from him what seemed to him the last traces of that joyous hopefulness men call youth, only deepened the agony of sorrow with which he looked back on a certain episode which had made him a seared, disappointed recluse, shrinking from his fellow men with distaste, and from women's society with horror.

Each time that he saw a fresh pretty face, bright with the unconscious poetry of girlhood and with the gay joyousness of youth, the old sorrow awoke and stirred, and at last he so ordered his life that he should see none of them.

Therefore it had seemed to him that Marcus' chance was a certainty, and that became a bitter disappointment.

### Synopsis of Previous Chapters

Marcus Quinten, impecunious and unworthy, but heir to the title and wealth of his cousin, and Jack Taunton, wealthy and honorable, fall in love with Lady Hyacinth Windermere. Her parents favor the former because of his prospects. They know nothing of the latter's immense wealth, and Quinten concealed the fact. The story opens at Ascot on Cup Day. A woman at the gate of the paddock accosts Quinten as her husband. He repulses her, saying that the marriage was false, and leaves her. She faints, and is befriended by Jack Taunton. Taunton learns Honour Read's story, and how she was deserted on the wedding day, and he urges Quinten to marry her. He refuses point blank. Taunton is refused admittance to Hyacinth's home, but meets her at the home of her cousin. She loves him, but says she must follow her parents' wishes. Taunton, failing to persuade Honour Read to expose Quinten to Lady Hyacinth, secures a position for her with Quinten's cousin, who is a misogynist, and requires a secretary who will not intrude on him personally, and therefore sends all his instructions by his valet. Honour feels that this cannot continue, and writes a note to Lord Vannister requesting him to give her a short interview, so that she may discuss the work assigned her. The following morning Honour receives a reply from Lord Vannister and goes into the garden to read it. She is angry and indignant at the note, and in her rage sobs out, "I hate him! I hate him!" At that moment she hears a low laugh at her side, and raising her head with an angry jerk, faces the intruder. She is startled to learn that the stranger is Lord Vannister, her employer. She then tells him the sad story of her life. Lord Vannister's sympathy is immediately aroused and he asks Honour if she will still remain as his secretary. In the meantime Marcus Quinten, who is down to his last penny, tries to borrow more money from Jack Taunton. Taunton refuses. A stormy scene ensues, and Quinten, enraged, leaves the room.

Doggedly, however, he still did his best for his heir, and about a year ago he had sent for him, and inviting him to be frank as to his liabilities and debts of all kinds, he offered to pay them all, and make a clean sweep of past follies to clear the way for a better state of things. Here was Marcus' chance, and as the express train bore him swiftly northward, he was reflecting on the small benefit that had come of it. For like other chances, it had come a bit too late.

From the first moment Lord Vannister had thwarted his boyish ambitions, he had disliked him, and the boyish antagonism had grown with his years to a veritable and a positive hatred of the stern, cold man who ruled his destiny.

And now as the fields and houses flew by in quick succession, he was torturing his brain to think of a way of obtaining that countenance and monetary support without which his hands were tied.

Would the announcement of his engagement to Hyacinth do it, he wondered. After all, she was a bride whom any father would welcome for his son—lovely, well born and exquisitely bred. Nor was she portionless, for Lord Windermere had expressed his intention of settling thirty thousand pounds on his daughter, provided that the other side could do the same.

Everything in short depended on the fashion in which he could present the business to his cousin's view, and on the temper, tact and discretion which he could bring to bear on the business. Somehow, he did not feel sure of himself, for there was something in Vannister's cool, hostile air which froze the words on his lips. His nerve, too, had been shaken by the events of the last few months, and as he looked out at the autumn landscape he cursed the mad folly which had led to his episode with Honour Read, and blessed the fortunate chance, which, calling him away, had saved her.

Yet even so she had been the evil genius of his life, and her reappearance at Ascot had been the signal for everything to go wrong with him. Thank heaven, she seemed at length to have disappeared, and that fact offered one cause for rejoicing in the miserable tangle which seemed to have overtaken his affairs.

The train glided smoothly into the familiar station, and almost immediately he saw the footman advancing to take his bags and rugs. At all events he was expected, and he was to be allowed to plead his cause in person.

He leaped from the carriage, and handed his wraps to the servant with a curt word of inquiry as to which carriage had been sent, for Marcus never wasted civility on inferiors.

He was informed that it was the motor, and took his way to the outside of the station feeling slightly pleased. A moment later they were off, Marcus driving the car.

They slipped swiftly down the white road from the railway station, past a few straggling houses where the employees of the railroad lived, and then taking a sharp turn, the scenery became more countrified and English homes were passed, peeping out from sheltering woods, until at last the gray pile of Gartlands

came into sight as they neared the outskirts of the park. Then suddenly it occurred to Marcus that the car he was driving was a new one, and he felt irritated with that ready resentment of the spendthrift at any extravagance on the part of others.

"His lordship has bought a new car," he said, as he turned in at the gates.

"Yes, sir."

"I don't care about the look of it," said Marcus; "this blue is too showy. I don't suppose his lordship ever takes the car out," he said, and his words had a question in them. "Why, it must be sixty-horse power at least."

"Yes, sir, a very powerful car, and takes a good bit of driving, but his lordship's driven the car several times." This did not look like a decrepit invalid, and Marcus hardly relished the information.

Before him now was the majestic pile of the great house that only one life kept from his possession. This thought was always with him at his first sight of Gartlands and it was with him now.

The vast building loomed up against an evening sunset which touched its many windows with tones of crimson and violet, and which hung behind it like a rose-colored veil. Never had the place looked more imposing, more beautiful, and Quinten drew a deep breath of longing as he left the car and mounted the broad flight of steps which led to the entrance. Patience and cunning, with these two things he must fight his battle.

It somehow struck him, as he entered, that about the place there hung a new atmosphere of pleasantness and even of gaiety, but in what the illusion consisted he knew not, for everything was practically the same. He received a message from Vannister that he would see him in half an hour if he would excuse him until then, and meanwhile he passed on to his room to remove the dust of the journey.

Everywhere as he moved the same strange sense of the enlivenment of the grim old place was with him. On a table in the hall one or two late October roses had been gathered and thrown down, and he heard the twittering of caged birds, the barking of a dog; the very air seemed full of noise and of the perfume of flowers.

Waiting patiently, at length the summons came, and then with his heart beating uncomfortably, he was ushered with a certain formality into his cousin's presence.

The long library was lit from end to end with shaded electric lamps and it seemed to him that behind their red shades they looked like vivid roses hanging on the wall. Perhaps it was this rosy glow which made Vannister look so wonderfully changed and well, as he came forward to greet him. Marcus could hardly respond, he was so amazed at the change. Only a short year ago he had seen a man whose pale, care-worn face was deeply marked with lines of illness and sorrow, a man who stooped slightly and walked with slow, languid footsteps. Now his step seemed light yet firm, his head was held high, a light which looked like happiness glowed in his deep-set, cavernous eyes.

"Your wire only reached me this morning," he said. "It was a sudden idea on your part; but you are welcome. Sit down."

He handed him a box of cigars as he spoke, and Marcus, reassured, sat down, although the old feeling of fear and of inferiority was with him as he did so. Still, his cousin seemed in a fairly good temper. That was something to be devoutly thankful for, at all events.

"Well, what is it?" he said, as the young man lit his cigar. "I don't pay myself the compliment of supposing you came two hundred miles to have a sight of me."

"That was one of my reasons," said Marcus, "but as you say, perhaps not the only one."

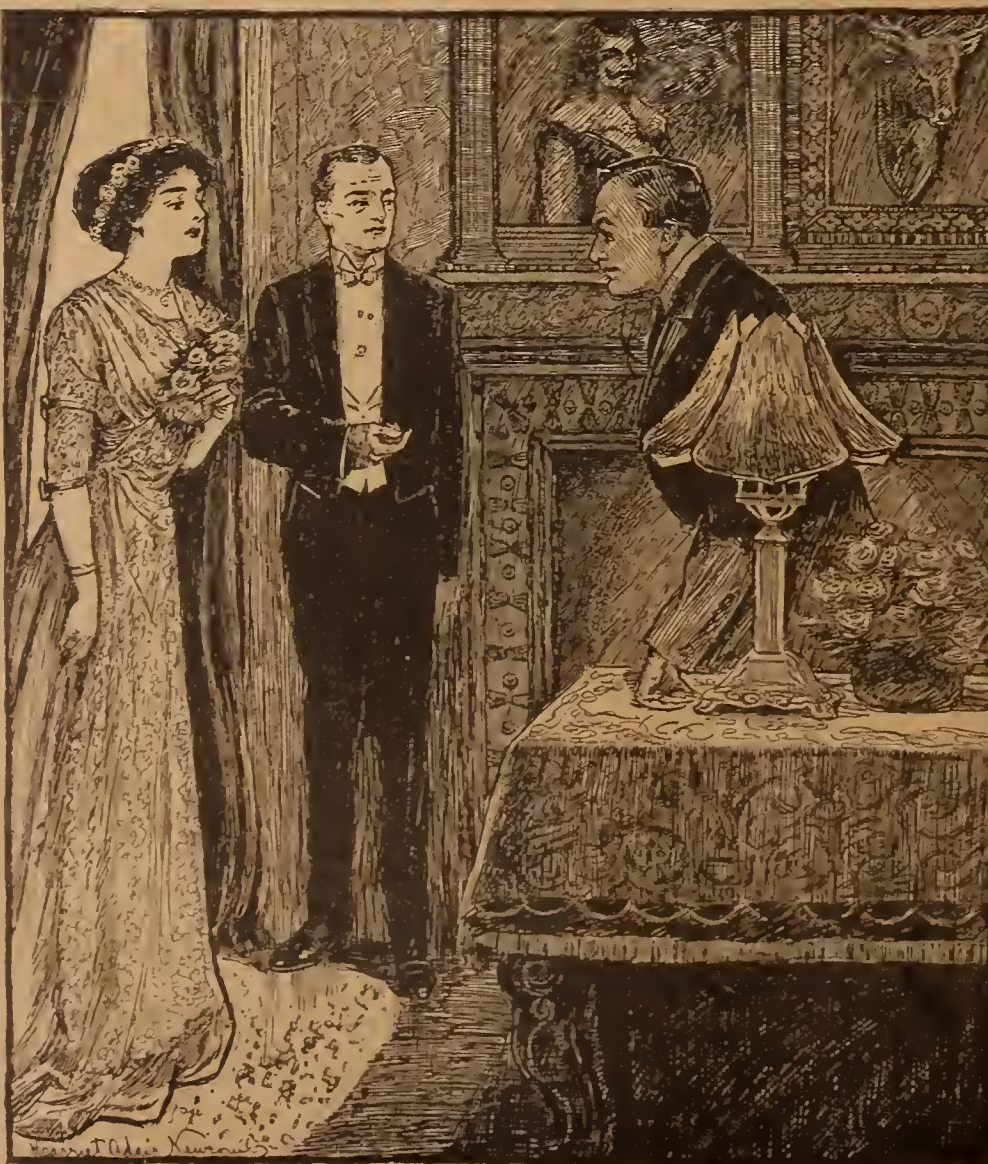
"Well, now, what was the other?" The crucial moment had come.

"I want to ask your consent to my engagement," began Marcus.

Vannister gave a short laugh. "Then you should have come some weeks ago," he said, "for I see that it has already been announced in the 'Morning Post.'"

"That was a mistake," stammered Marcus. "Her family put it in. I was very vexed about it."

"I have no doubt you were, as you know I take in the paper, but I cannot suppose my friend Windermere would do anything premature."



"My wife," he said proudly





## Our Girls at Home



### The Girl That Whines

**T**HE whining girl. Do you know her? If you do not, you haven't missed much.

It isn't worth much trouble to make the acquaintance of the girl that whines. It may be, however, that you have among your casual, occasionally-met acquaintances a number who are classed among the whiners. If you do not know them intimately, particularly in their home life, you may not know them as such.

The chronic whiner does her whining at home. One reason for this may be that her insufferable habit of whining would not be tolerated anywhere else.

If she does not believe this, then let her try the experiment just once. Once will suffice. She will find herself speedily and effectually ostracized by her girl friends and shunned as a plague by the boys. The whining girl does not whine in company. She reserves this ugly part of her disposition to inflict on the home folks in private. And if you could see her there you would scarcely recognize her in the offensive rôle of whiner as the sweet-mannered, pleasant-faced girl you see posing and receiving compliments as the most agreeable and ladylike of girls. If perchance you should catch her whining, you would be shocked at the contrast; and she would be shocked at the discovery. And more discoveries might result in less whining.

She whines in the morning because she has to get up and at night because she has to go to bed; and the day is filled with her nerve-racking whining at everything that is, that isn't or that might be—that is, at home, when there is no company. She whines about her work, she whines about the things to eat, about the things to wear, about the weather, no matter what it is, and when there are no more material things to whine about she whines just because she whines.

She whines at her mother and her sisters and her brothers and her father; and no matter what they may do, what they may sacrifice, to please her, it is all the same, she whines because they did not do the other thing or that they did it at all. And the poor mother generally suffers her to whine, no matter what worry and care and trouble she bears because of it; and the rest of the family, provoked to desperation at times, put up with it the best they can just because "mother" tolerates it, for Milady Whiner is a spoiled child.

Girls, for your own sakes, don't whine! If you do—stop it! Stop it right now! Assert the womanhood that is your heritage and purge yourselves of the whining habit as though it were a mortal plague. If there is any one thing that a man abhors, aside, possibly, from a nagging woman, it is the whining habit of a girl.

### Popular Jewelry Novelties

**T**HE best-dressed girl is never the girl who wears much jewelry, yet there is hardly one girl in a thousand that does not want to know all about the jewelry novelties of the moment that the fashionable New York women are wearing. Nowadays the wearing of inexpensive jewelry is not considered bad taste, because the artificial gems displayed in the shops are perfect copies of rare jewels.

Since the psyche knot has become one of the most fashionable coiffure styles of the day, many new hair ornaments to wear with it have been introduced. Fashion says: Very wide barrettes, shell bandeaux and all sorts of fancy hairpins. Something new and very attractive in the way of a hairpin is of shell with a rhinestone ball top, so mounted that it moves back and forth.

Many women are wearing smoked-pearl earrings with a long drop, also earrings of imitation turquoise and pink coral. And it is not at all necessary to have the ears pierced to wear them; for they are made with the new screw back, so that they can be fastened close enough to the lobe of the ear to hold firmly in place.

Among the popular designs for brooches are mercury wings, horseshoes, bow knots and swallows. And the fad of the moment is to have your earrings, necklet and brooch match in color.

Sets of collar pins are more in demand than ever. Those in the form of mercury wings studded with rhinestones and having a small pearl in the center are most attractive. Then there are pretty bar collar pins of cut silver, and veil pins in the form of a swallow which the New York woman favors.

There is a decided revival this year of jet jewelry, and the clever woman often uses it for the necessary black touch to her costume.

### Letter Writing

**W**E HAVE told you about the kind of stationery a girl should use for her personal correspondence. Now we are going to give a few suggestions concerning letter writing, which we feel sure will be helpful to our girl readers.

The simple rules for letter writing may be summed up as follows:

1. Know what you want to say.
2. Say it.
3. Use your own language.
4. A short word is better than a long one.
5. The fewer words, the better.

#### Formal Letters

When plain paper is used, every formal letter should have the address of the sender and the date clearly written in the upper right-hand corner of the first page, about one inch, more or less, according to the size of the sheet, from the top. Thus:

30 East 7th Street, New York,  
February 10, 1909.

The letter should then begin with the name and address of the person to whom it is written, and beneath that

My dear Mr. B—:—

#### Closing a Letter

"Very truly yours" is the most formal expression for the conclusion of a letter in general correspondence.

"Sincerely yours" may also be employed in closing a formal communication, but its use is so general that it now has a social significance.

"Faithfully yours" is used extensively by the English, and in writing to an Englishman one might show him the courtesy by using his favorite expression.

A letter from a woman to a man where there is only a slight acquaintance should conclude "Respectfully yours," "Very respectfully yours," or merely "Yours truly."

#### Regarding the Signature

In writing a letter the signature of the writer should be used. A married woman signs her name thus, "Helen Jones," and if she wishes to make her identity perfectly clear, she may add in brackets [Mrs. Edward Everett Jones].

An unmarried woman writing to one to whom she is unknown places "Miss" in brackets before her name.

#### Informal Correspondence

In informal correspondence a note or letter begins "Dear Mr. —," and usually closes "With kindest regards," or "With best wishes," "Sincerely yours," or "Cordially yours."

"Affectionately yours" of course may be used between friends where the intimacy is close.

#### Addressing an Envelope

To an unmarried woman the envelope should bear the prefix "Miss." To a married woman "Mrs." precedes her husband's name.

In addressing a man, either "Mr." before the name or "Esq." after it may be used. Never make the mistake of using them both.

### A Novel Party

"Backward, turn backward, O Time in your flight,  
Make me a child again, just for to-night."

Mr. J. H. R—

Tuesday evening, March the tenth,  
Eight o'clock.  
Please wear a child's costume.

When the guests arrived the ladies were dressed in short skirts and pinafores, some wearing tight-fitting baby caps or sunbonnets, and carrying school books in straps, which were thrown over their shoulder. The little men came in short trousers, blouses and large white collars. Buster Brown was there with little Lord Fauntleroy, and two or three who came together were announced as "Widow O'Callaghan's Boys." All kinds of childish games were played, such as: "Pussy Wants a Corner," "Drop the Handkerchief," "Blindman's Buff," "Ring Around a Rosy," and "Pinning the Tail on the Donkey." Prizes were given in the last-named game. They consisted of a doll for the "girl" and a drum for the "boy" pinning the tail nearest to the right spot. A heavy swing rope fastened to large hooks in the archway of the folding doors afforded much amusement.—Kathryn Hall.

# Our Gifts to You

## For a Few Minutes' Work

Every article is guaranteed just as represented and perfectly reliable. You can obtain any of these articles by getting a few of your neighbors and friends to each let you send us 35 cents for a full year's subscription to FARM AND FIRESIDE. This is very easy to do, as almost every one subscribes as soon as he or she sees a copy and knows how little it costs. Subscriptions may be either new or renewals, and your own subscription may count as one. Send all subscriptions to THE MILLION CLUB, FARM AND FIRESIDE, Springfield, Ohio.

#### Men's Catcher's Mask (1299)

Made of strong, heavy wire, padded with heavy leather. Thoroughly up to date, latest design, greatest strength and durability. Full size. Sent postpaid for only eight subscriptions to FARM AND FIRESIDE at 35 cents each.



#### Men's Professional Baseball (1296)

A durable, well-made baseball that should stand the hardest kind of use and outlast a full game. Sent postpaid for only three subscriptions to FARM AND FIRESIDE at 35 cents each.



#### Boys' Baseball (1295)

This is an excellent, large, durable ball for boys. Almost men's size. Sent postpaid for only two subscriptions to FARM AND FIRESIDE at 35 cents each.



#### Men's Catcher's Mitt (1305)

Best quality leather, large size, and the new 1909 design. Has deep pocket. Made by the best manufacturers of baseball goods in this country. Will last for many years. Sent postpaid for only eight subscriptions to FARM AND FIRESIDE at 35 cents each.



#### Men's Infielder's and Fielder's Glove (1308)

Best workmanship and quality, web thumb, deep pocket and thoroughly well padded. Made of good strong leather. A top-notch article in every respect. Sent postpaid for only eight subscriptions to FARM AND FIRESIDE at 35 cents each.

#### Repeating Air Rifle (481)

Description: Repeating, hammerless, durable, shoots accurately. Extremely simple in construction. Gives a boy lots of healthful outdoor pleasure, cultivates manliness. Uses no powder—just air. Shot costs but 10 cents per 1000. Nickel-plated, solid wood stock, pistol grip, true sights, impossible to get out of order.

This dandy repeating Air Rifle will be sent for only six subscriptions to FARM AND FIRESIDE at 35 cents each.

#### Reliable Fountain Pen

This Fountain Pen is made by the largest manufacturer of Fountain Pens in America. It has a gold pen point and the barrel is beautifully chased. This fine Fountain Pen is sent complete in a case with a filler, postpaid, for only four subscriptions to FARM AND FIRESIDE at 35 cents each.



#### Men's and Boys' Fine Watch



WATCH No. 370

Movement: Regular sixteen size. Heavy bevel crystal.

The Guarantee: In every watch will be found a printed guarantee, by which the manufacturers agree that if without misuse the watch fails to keep good time within one year, they will, upon its return, with five cents postage, repair it free of charge, and return it.

Description: Elegant nickel case, snap back, Roman dial, stem wind, stem set, open face.

This fine watch is sent postpaid for only six subscriptions to FARM AND FIRESIDE at 35 cents each.

AIR RIFLE No. 481



#### Silver-Plated Salt and Pepper Shakers (311)

This Salt and Pepper Set is of the best grade of silver-plated ware. The body of each shaker is finished in a beautiful satin finish, while the top and the lower part up to the embossing is highly burnished. Each one is 2 3/4 inches high and 1 1/4 inches in diameter. Their wearing qualities are of the very best. Sent postpaid for only two subscriptions to FARM AND FIRESIDE at 35 cents each.

311

Send All Orders to John L. Thompson, Secretary  
THE MILLION CLUB, FARM AND FIRESIDE, Springfield, Ohio



## All Six Are Almost Free

These are the stylish Wild Rose design, triple-plate silver teaspoons. They are made by the famous Oneida Community Ltd.

They are exactly similar in quality to spoons selling at \$3.00 for the six in the best stores. It takes an expert to tell them from sterling silver spoons selling at \$7.50 for the six. They are guaranteed for ten years, and you can get all six without paying a cent.



## Simply Do This

Get only five of your neighbors or friends to each give you 35 cents for a full year's subscription to FARM AND FIRESIDE (24 numbers). Send the money and the subscriptions to me and I will send you the six silver teaspoons above by return mail, postpaid. That is all you have to do. You can get a second set by getting five more subscriptions, if you like. Don't delay. Canadian subscriptions 25 cents extra. Address

John L. Thompson, Secretary  
**THE MILLION CLUB**  
Farm and Fireside, Springfield, Ohio

## Let Me Send You Our Reward List

FARM AND FIRESIDE has prepared for its readers a book containing illustrations of nearly three hundred handsome articles that can be obtained entirely without cost.

All you have to do to get them is to interest a few of your neighbors and friends in FARM AND FIRESIDE, which is very easy.

Many of these fine articles are probably just what you have wanted for a long time for yourself, your home or your farm.

Let me tell you how to get them without cost. Send me a postal asking for our big Reward List (it's free) and I will hustle it to you by first mail, and write you fully. Just write—that's all—to

John L. Thompson, Secretary  
**THE MILLION CLUB**  
Farm and Fireside, Springfield, Ohio

## A Remarkable Pigeon Farm

AT LOS ANGELES, California, about two miles from the center of the city, is the largest pigeon farm in the world. A little over one hundred thousand pigeons is the number of its present supply, which, in fact, is more than double the number of birds possessed by its closest rival.

The farm was started by J. Y. Johnson, its present owner and manager, about thirteen years ago. Only one hundred pigeons was the number started with, and of those one hundred, five or six are still to be seen about the farm, therefore being over thirteen years old.

The farm covers only eight acres of ground, and at times it seems to be entirely covered by the birds, especially at the feeding times, which are seven o'clock in the morning and three o'clock in the afternoon. The latter affords an interesting sight, and is usually witnessed by a large number of visitors. The birds consume about two tons of feed daily, consisting of grain of nearly every kind.

The farm possesses eight or nine varieties of pigeons, of which the homer and the common pigeon are considered the best payers. The birds are sold, as squabs, when from three to four weeks' old, at from two to three dollars a dozen. The selling of squabs constitutes the chief source of income to the keeper of the farm, although occasionally pairs are sold to individuals for pets and other purposes.

CHAS. ALMA BYERS.

### The Making of Matches

SOME one with plenty of spare time has figured out that the civilized world strikes three million matches every minute of the twenty-four hours, or 1,576,800,000,000 matches a year! Estimating the average match to be a little less than an inch and a half long, this means three hundred and seventy-three million miles of matches. The number of matches lit each minute represents a log a foot in diameter and about twenty feet long.

Nearly half of these matches, it is said, are used in the United States; but though there are more than a hundred and fifty match factories in this country equipped with the very best machinery, we import annually from Germany, Austria, France and Sweden thousands of dollars' worth of matches to make up our grand total of seven hundred billions. Most of our safety matches are of European manufacture.

Matches being so small, it might be supposed that they were made of scraps and odds and ends of wood; but on the contrary, the choicest portions of selected pine logs are used for matches.

Nearly every factory has its own special machinery and process. In some matches are shaved, with the grain, from sawed blocks; in others they are cut both ways with saws. Often the blocks or logs are boiled or steamed, so that they may be cut more easily.



Feeding Time on the Largest Pigeon Farm in the World

### Pigeons as Photographers

THE remarkable sense of direction which enables a pigeon to find its way back to the cote, even from a considerable distance, has long been used for the conveyance of written messages. It occurred to Doctor Neubronner, of Cronberg, recently that he might attach to a pigeon a small photographic camera, allowing some distinct views to be taken during a flight of about twenty meters a second.

After testing this camera from an express train, Doctor Neubronner proceeded to perform his first experiments on carrier pigeons as photographers, and the first pictures, which were two by two centimeters in size, were considered quite satisfactory as preliminary results. As the inventor soon realized the scope of this idea, he ordered from a good mechanic a larger camera with a better objective and films of four by four centimeters, with a view to further improving those views. This camera having been fixed to the pigeon's breast with a thin board of hard wood, was kept in position on the back of the bird by means of straps. A small India-rubber ball, allowing the air slowly to escape, would effect the instantaneous opening of the shutter in due time. As the air issued from the ball the latter collapsed more and more, while disengaging the shutter at regular intervals, which were readily predetermined. Doctor Neubronner was thus able to secure eight consecutive views, but the capacity of the apparatus is likely to be increased up to thirty views, so that, with intervals of half a minute, a distance of fifteen kilometers could be covered nearly continuously. As a pigeon is able to transport seventy-five grains to a distance ten times as great, no essential difficulties will be met with in carrying this idea out in practise.—Technical World Magazine.

### Queer Fabrics

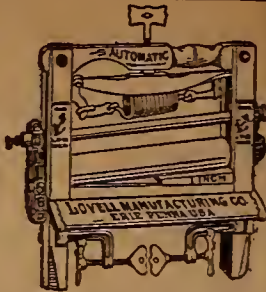
HERE you are! Shirts made of pine needles, gowns made of nettles and boots made of cactus leather!

Out in the valleys of California and Oregon several factories are at work turning the long needles of the yellow, or "bull," pine into thread from which are woven coarse fabrics to be made into underwear, socks, inner shoe soles and other useful articles. These pine needles are from six to ten inches long and are soft and flexible. They are stripped in the spring and fall without injury to the trees, the pickers, largely boys and girls, each picking from six hundred to eight hundred pounds a day for twenty-five cents a hundred pounds. When steamed, dried, rolled and reduced to pulp, the tough outer cover of the needle yields a fiber that is readily spun into thread.

In the Philippines, as well as in China, Manchuria, Java, India and Porto Rico, a sort of nettle, known as "ramie," or "China grass," yields a fiber that is woven into ramie cloth—a strong, washable fabric with a silken luster. Ramie is more easily grown than cotton. The wealthy Chinese prefer it to all other materials for clothing. The fiber is also used in making fish lines and nets, cables, sail cloth and paper. Germany uses annually one hundred and fifty million incandescent gas mantles of ramie fiber, and bank notes of ramie paper have been found particularly durable in France and other countries where they have been put in circulation.

Not only has the once-despised cactus been utilized as a fruit and forage plant, but different varieties have also been persuaded to yield rope, candy, matting and baskets. Cactus leather, a material similar to skin leather and adaptable to like uses, has lately been made from the strong covering of the hardy desert plant.

## 2 Cents a Week



That's all it costs you to own a clothes wringer that wrings four times the thickness, automatically equalizes the pressure for the full length of the rolls, spreads out the clothes, cannot run out of gear, will not break buttons, and is absolutely guaranteed for five years.

### "Anchor Brand" Automatic Wringers

are more economical, more satisfactory, more durable, and turn easier than any other wringer.

Fill out and mail the coupon below, giving us the name of your local merchant and we will prove to you that the "Anchor Brand" Automatic will save one-half your wash time, and cost you only 2 Cents a Week.

Lovell Manufacturing Co., Erie, Pa.

Mail This Coupon Today

LOVELL MANUFACTURING CO., ERIE, PA.  
Tell me how I can get an "Anchor Brand" Automatic Wringer for 2 cents a week on a 5 year guarantee.

My name is .....

Town..... State.....

Dealer's name..... (Be sure and give this)

## WANTED 10,000 MEN

By leading railroads everywhere.  
**Salaries \$70 to \$185 per month**  
We teach you by mail the standard rules and modern methods employed by all railroads and qualify you to fill positions as  
**FIREMEN and MOTORMEN**  
in a short time. Our school is conducted by prominent railroad men. Endorsed by the great railway companies who give our students the preference. Thousands of successful students. We also have excellent courses preparatory for Brakemen and electric railway Conductors. Demand for our students greater than the supply. Practical instruction guaranteed at low cost. Write today for catalog and full particulars.  
**THE WENTHE RAILWAY CORRESPONDENCE SCHOOL, DEPT. 406, FREEPORT, ILL.**

**TRAVELING SALESMEN**  
**EARN BIG SALARIES**  
From \$1,000 to \$10,000 a year and expenses. If you want to enter the easiest, best paid profession in the world, our free catalogue "A Knight of the Grip" will show you how. We place hundreds of our graduates in good positions with the best firms all over the United States and Canada. Write (or call) for particulars today. Address  
Dept. 168, National Salesman's Training Association  
Chicago, Kansas City, New York, Minneapolis, San Francisco.  
Write nearest office.

**Pye's Velvet Skin Balm** Instant and cooling relief to chapped, rough and inflamed skin. Indispensable after shaving. Alaysa Sunburn. By mail 25 cents; postage 3 cents. Pye's Chemical Co., 206 Broadway, New York City.

### Agents Wanted

**\$90 A MONTH.** \$60 expense allowance at start, to put out Merchandise and Grocery Catalogs, Mail Order house. American Home Supply Co., Desk 3D, Chicago, Ill.

**AGENTS PORTRAITS 65c, FRAMES 15c,** sheet pictures 1c, stereoscopes 25c, views 1c. 30 days credit. Samples & Catalog Free. Consolidated Portrait Co., 290-31 W. Adams St., Chicago.

**JUST OUT** Low-priced, 3-lb Mop; turn crank to wring; clean hands. Women all buy; 15c to Agents; catalog free.  
**U. S. MOP CO.** 392 Main St. Leipsic, Ohio

**AGENTS NINE IN ONE**  
\$75 monthly. Combination Rolling Pin. Nine articles combined. Lightning Seller. Send for Sample. **FORSEER MFG. CO.,** Box 205, Dayton, O.

**AGENTS WANTED** to sell direct to consumers. Big profits Groceries, Coffees, Teas, Flavors, Perfumes, Soaps, etc. With or without premiums. Write for Catalog A.  
**BRUSHWAY FLAVORING EXTRACT CO.** 951 Water St. Decatur, Ill.

**\$4 a day SURE**  
Easy work with horse and buggy right where you live in handling our ironing and fluting machine. One agent says: "Made \$50 in 3 1/2 days." We pay \$75 a month and expenses; or commission.  
**PEASE MFG. CO.,** Dept. 7, Cincinnati, Ohio.

**\$18 to \$30 A WEEK SURE**  
Farmers "Ever-Ready" Tool Kit does it. Agents going wild over results. M. Snyder made \$46 in 2 hrs. Joseph Pine took 65 orders in two days. M. D. Finch sold 42 in 9 hrs. Had no experience. You can do it. To show it means a sale. FREE SAMPLE to workers. **Foots Mfg. Co.,** Dept. 801 Dayton, O.

**"I MADE \$12 PER DAY**  
Selling This 7-Piece Kitchen Set"  
From sworn statement of H. S. CUNNINGHAM.  
**AGENTS**  
are coming money—selling from 50 to 500 sets per week. You can do it. Send your address today and let us PROVE IT. Experience unnecessary. We show you how to make \$3 to \$10 a day. **OUT-FIT FREE** to workers.  
**THOMAS MFG. CO.** 404 Home Bldg. Dayton, Ohio





# The Household



## Mending Suggestions

UNTIL it has been tried, no one can realize what a lot of time and trouble can be saved by doing the family mending on the sewing machine.

Here is a good suggestion for mending overalls. Baste the patch firmly to the outside, turning in the edge as required, and stitch. Then turn the garment wrong side out, and stitch close to the edge of the patch also. By working slowly one can sew long patches over the knees of the overalls, and they will be stronger and look much better than when sewed by hand.

To refoot a stocking, cut from an old stocking leg a triangular piece about eleven inches long and six inches wide on one end, tapering it to a point. Cut the worn part from the stocking on a slant, then stitch the triangular piece and sew the straight edge together to form the heel. In this way no seams will come where they will hurt the foot. By varying the size of the triangular piece, stockings may be cut over to fit little feet, thus saving an item which means a great deal when there are several pairs of little feet to keep warm and dry.

## Good Sausage

FIRST prepare the meat properly, then cut it into strips that will easily grind through a food chopper. Spread the meat out on a table, and sprinkle with salt, pepper and sage. It is better to season the meat before grinding, as it is always so much more trouble to mix it by hand after it has been ground.

To twenty-four pounds of prepared sausage meat use one medium-size teacupful of salt, four tablespoonfuls of black pepper and three tablespoonfuls of powdered sage. These proportions will make a sausage of unusually good flavor.

## To Keep Sausage Fresh

PACK freshly made sausage in half-gallon crocks, for convenience while using, then set the crocks in a hot cook stove, and let them remain for about ten minutes. As soon as grease begins to flow on the top of the sausage, take out of the stove and let the meat cool. Place a piece of white paper closely over the top, and tie up the crock with thick, heavy paper. Set in a cool place and you will have fresh sausage until warm weather.

## Washing Made Easy

FIRST of all, the dirt must be loosened. To do this, cut one bar of good laundry soap into shavings, put in two quarts of soft water, and boil until dissolved. When it cools, add one cupful of ammonia, two tablespoonfuls of powdered borax and sufficient water to make the original two quarts. Then last of all add one teacupful of kerosene, and stir well until cool and a smooth emulsion is formed. Into about three or four gallons of warm water stir one cupful of this mixture, and soak the clothes over night. You will find that the dirt will wash out very easily and you will be saved a great deal of unnecessary rubbing. Clothes washed in this manner will be as white as snow.

## Good Home-Made Yeast

BOIL one pint of hops in two gallons of water for thirty minutes, then strain in a jar. When cool, add two level teacupfuls of salt and one half pint of sugar. Mix one half pint of flour in a little of the liquor and empty into the liquor, stirring all the ingredients together. Let stand two days, then stir in three pounds of boiled mashed potatoes, and allow it to stand another day. Strain, and pour into stone jugs. Keep the yeast in a warm place during the process of making, but in a cool place when finished. You will find that the yeast will last indefinitely and improve with age.

## To Prevent a Burning Smell

IF MILK or anything cooking on a range boils over, burns and smokes, the smell can be prevented by lifting the lid of the range slightly to one side and letting the smoke draw into the fire.



Laundry Bag for Holding Patterns. Made of Heavy Canvas

## Good to Remember

When children have scalded their tongues by taking hot food or drink, a sip of milk held in the mouth for two or three minutes will cause the unpleasant feeling to entirely disappear.

To freshen old velvet, hold the velvet pile downward over boiling water in which twopenny worth of stone ammonia has been dissolved. Double the velvet (pile inward) and rub lightly together.

To renovate faded silk, sponge it with warm water and soap, then rub with a dry cloth on a flat board. Afterward iron on the inside with a smoothing iron. Old black silks may be improved by sponging with spirits. In this case the ironing can be done on the right side, paper being spread over to prevent glazing.

When a splinter has been driven into the hand, it can be extracted by steam. Fill a wide-mouth bottle nearly full of hot water, place the injured part over the bottle and press it slightly. The action thus produced will draw the flesh down, and in a minute or two will extract the splinter, and also take away the inflammation.



Laundry Bag Which Opens at Top and Bottom

HERE'S convenience for you—a laundry bag which will let the clothes out at the bottom.

The bag is not only for soiled "trifles," but for general wash, to be used in place of a hamper. It may be made of denim ticking or heavy unbleached cotton. It is made in two pieces, the back longer than the front, the extra length falling over the rod, forming a flap, and the front wider, to make a slight pouch. The bag closes at the bottom with large snap fasteners or large strong buttons. The bottom is buttoned together. Instead of lifting the bag down or taking clothes out of the top, unbutton and allow them to fall out at the bottom.

## Convenient Pattern Rack

HAVE you ever thought of the convenience of having a pattern rack? When a certain skirt pattern is needed in a hurry, what a comfort it would be to know that you can lay your hand right on it without having to spend an endless amount of time hunting about to try to find it. To make the rack, use canvas, and hem the top and bottom, then turn the bottom up to form pockets. When measuring off the width you wish to make the pockets, be careful to keep each one the same size. Stitch firmly. The pockets may then be labeled as shown in the illustration.

## A Sewing Corner

A SEWING corner is something that every woman who sews should have. Choose the brightest and sunniest corner in the sitting room, and make it your own little sewing corner. What a lot of trouble it will save you to have all of your materials together when you want to sew. And when you are called out in the kitchen to attend to dinner, you won't have the annoying feeling that your sitting room is a "sight" to behold, should any one call.

Tack some nails in the wall, within convenient reach of your arm, and hang on them your spools of thread, darning cotton, etc. Above these drive more nails on which to hang your scissors, thimbles, pincushions, etc. On the opposite side of the wall have another row of nails, on which to hang bags (made of cheese cloth, calico or any material you may choose), in which to keep scraps and odd bits of lace, ribbon, etc. Of course there must also be a large bag to hold the stockings which need mending.

## To Keep Milk Sweet

PUT the milk into a pan or suitable vessel, and set where it will heat slowly. Allow it to become scalding hot, but be careful to see that it does not boil. Fresh milk will wrinkle on the top as the cream rises, and should be set aside at once to cool. Skimmed milk will have a thin glaze on top when hot enough to set off to cool. The heating kills the germ that causes decay. As a sanitary precaution it is especially necessary. A great many people will not use milk unless it has been sterilized.

## Stewed Celery

COOK the celery in slightly salted boiling water until tender, having first cut it into half-inch pieces. Bring one and one half cupfuls of milk to a scald, then pour it slowly over the well-beaten yolks of two eggs and one half cupful of rich cream. Cook until it thickens, without boiling, season with salt and pepper, then pour it over the celery in a heated dish, and serve at once. Or the milk may be thickened with a little flour or corn starch if preferred. Stewed celery is very nice served on small squares of hot buttered toast.

## Celery Stuffing

FOR chicken and turkey, celery makes a delicious stuffing. For turkey use about one pint of finely chopped celery, one tablespoonful of minced onion, one teaspoonful of minced parsley, one half teaspoonful of powdered thyme and the juice of a large lemon. Add one breakfast-cupful of oysters cut rather small, one teaspoonful of salt and two or three dashes of pepper. Fill the turkey with this, and sew it up. To make the turkey more tasty, baste it frequently with a mixture of melted butter and oyster liquor.

## Celery Sauce

THIS sauce is to be served with vegetables. Take cream or rich milk and boil with pieces of celery till flavor is extracted. Remove it, and season sauce with salt and pepper. Add butter, then a little flour for thickening.

## Weights and Measures

Two tablespoonfuls of powdered sugar make one ounce.  
Two tablespoonfuls of flour make one ounce.  
Four cupfuls of sifted flour make one pound.  
Four cupfuls of liquid make one quart.  
Two cupfuls of solid butter make one pound.  
Two cupfuls of granulated sugar make one pound.  
Ten eggs make one pound.

## Cream Chicken

TWO cupfuls of cold chicken, one large cupful of cream sauce, a little chopped parsley, about one half teacupful of salt and pepper. Cut the chicken into even pieces before you measure it; heat in the sauce until very hot, but do not let it cook; then season.



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Pony. Isn't He a  
Perfect Beauty?



You May Have  
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You do as We  
Say Below

## Which Pony Do You Want?

FARM AND FIRESIDE is going to send the four prettiest Shetland ponies in America to four boys and girls who are willing to do us a favor after school hours. Two of these ponies will be given with beautiful rubber-tired, stylish pony carts and bright, shiny harnesses—all brand new—and the other two will be given with handsome saddles and bridles, complete. We are going to send them prepaid right to the very doors of the boys and girls who send us the most subscriptions to FARM AND FIRESIDE during the next few weeks. Just think how happy you will be to get for your very own one of the prettiest and strongest Shetland ponies in America! Think of the fun you can have riding and driving him! Think how rich you will be! These pony outfits are worth from \$200 to \$400 each.

### Any Boy or Girl Can Get a Pony

Start now and hustle—that's all that is necessary. No one has a better chance than you. You will be the proudest and luckiest boy or girl in the whole country. We want every person who reads this page to take part in this great liberal contest.



This is "Beauty," the Second Prize Pony, With  
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Never have finer ponies been  
offered, and we guarantee a valu-  
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Four Beautiful Ponies  
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I cannot begin to tell you how happy I am to own such a fine pony. He is a perfect beauty. I certainly have been well paid for the little time I spent in getting subscriptions.

LEONARD FOREMAN,  
Osceola Mills, Pa.

My beautiful pony "Bobby" that FARM AND FIRESIDE sent me last year has just taken one of the prizes at our county horse show.

I have been offered \$200 cash for my pony alone. Hardly anyone refused to subscribe to FARM AND FIRESIDE. It is easy to win if you don't give up.

MARGUERITE LAWSON,  
Hopkinsville, Ky.  
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R. F. D. 11, Westport, Conn.

This Pony Contest will be twice as easy to win as our last year's contest, for we offer twice as many ponies this year and give you twice as long to win them.

## Don't Wait—Start To-day!

All you have to do now is to write your name and address on the coupon below (or a postal card will do) and send it to me. I will immediately send you full particulars, including many beautiful pictures of the ponies and other prizes, entirely free. Don't delay! The sooner you send it, the sooner you will win!

Yours for a pony,

THE PONY MAN.

P. S.—If you want to make sure of a prize the very first thing, don't wait to hear from me, but start right out and get ten of your neighbors and friends to each give you 25 cents for a subscription to FARM AND FIRESIDE for the entire balance of the year 1909. Keep five cents from each of these subscriptions and send the rest with the names to me. You will then be a full-fledged contestant and right in line for "Dandy," and I will put you down for a prize right then, so you will be absolutely sure of it. Canadian subscriptions 25 cents extra.

The Pony Man of  
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Mar. 10

Dear Pony  
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I want to  
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Please write me  
by return mail, tell-  
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him, and send me all  
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other pictures and the  
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## Things Worth Knowing

### What Music Can Do

THERE is an interesting little story back of the building of one of the most remarkable highways of the world. Benguet Road, built through the mountains of northern Luzon in the Philippine Islands, is an illustration of what the cleverness of one man can accomplish.

Of course it took an army of men to build this famous road—four thousand of them, in fact, working steadily ten hours a day—but it was the one man at the head, the leader, whose cleverness pushed the work through to completion. This man, Major L. W. V. Kennon, who is now commanding a battalion of the Tenth Infantry at Fort Benjamin Harrison, found that the work dragged. The big army of four thousand men, made up almost entirely of Filipinos and other Orientals, were slow and took no interest whatever in their work. The Major decided that something must be done to make the men work with a will and to rush the road through to completion.

Knowing the pleasure-loving dispositions of the Filipinos, Major Kennon decided to see what a little music would do as an impetus to work. So he assembled his band, made up of men of all nations, and ordered it to move quietly and secretly to a place where several hundred Filipinos were engaged in slowly drilling holes in the cañon walls. The band stole up behind the slow-going drillers and suddenly struck up a favorite Oriental air.

The waking-up effect was marvelous. Instantly the Filipinos caught the spirit of the music and began to beat their drills against the rock in rhythm. So successful was the plan that double the work was accomplished, and after the first experiment the band followed the Filipinos along the way and played wherever they worked.

In speaking of his unique plan, Major Kennon said that he not only saved the Philippine government thousands of dollars, but he transformed sleepy, slow Filipinos into energetic workmen who accomplished things.

### Talking of the Weather

FREQUENTLY the oldest inhabitant is heard to say that the winters aren't what they were when he was a boy, and to many of us it does seem at times as though the climate were growing warmer.

Government experts, however, by comparing the records of temperatures and climatic conditions for the last fifty years, have determined that our winters are exactly as wintry and our summers are just as summery as they have been within the memory of man.

### Too-Generous Uncle Sam

ONE of President Roosevelt's best fights has been against the reckless or corrupt distribution of the public lands. Up to twelve years ago Congress had given to railroad and other corporations two hundred and sixty-six million acres, an area almost equal to that of France and Germany combined.

The Northern Pacific Railroad Company alone received a grant of forty-four million acres, equaling in area the combined states of New York, New Jersey, Massachusetts, Connecticut, Rhode Island and Delaware. One man alone, Henry Miller, who started in life as a German butcher's boy, owns and controls 22,500 square miles of territory, thus ruling over a domain far greater than that of the King of Belgium.

### Where the Corks Come From

WHEN you next open a bottle, think of the peaceful town of San Felin de Guixols on the northeast coast of Spain, for the chances are that is where the cork that you draw was made. The output of the fifty or sixty factories in this one town aggregates from seventy to one hundred million corks a year. A cork cutter can make, by the aid of machinery, from four to five thousand corks a day, and receives approximately forty cents for the work.

Corks are made from the bark of the cork oak, growing practically only in limited districts of Spain and Portugal. About forty-five pounds of cork are taken regularly in sheets from each well-grown tree, which apparently does not suffer much from the stripping, as trees are said to yield crops for one hundred and fifty years and often live from three to four hundred years.

### More About Home-Made Ice

A WAY off in Reading, England, a machine has been invented for making ice at home. The inventors claim that their apparatus is inexpensive and that it will produce ice at a minimum of not only cost, but labor, through the direct agency of sulphuric acid. They say that by means of their new invention a carafe of iced water can be produced in three minutes and that the work of manipulating it is most simple. With half a gallon of acid, which constitutes a complete charge, one can ice from fifty to one hundred carafes of water, and the cost of this is entirely the local charge for sulphuric acid plus the initial expense of the machine, which is purchasable for less than fifty dollars, the only extras being one or two dollars for space absorbers, or carafes.



A Veteran Actor

Probably no other animal has had such a wide theatrical experience as this sheep, Billy. He appeared long ago in "Cheer, Boys, Cheer," and was also in the cast of "The Prodigal Son" at Drury Lane, London. Billy is English. He is quite a traveler. He has appeared at every important theater in the provinces. Blackpool, Dublin, Manchester, Bradford, Leeds, Cardiff, Aberdeen, Cork, Douglas (I of M), etc., have all welcomed Billy. Of course, like an actor of standing, he has many good stories to tell, or rather has them told for him. Whenever a flock of sheep has to appear in a piece, Billy acts as leader, and no matter how nervous the others might be, Billy never suffered from stage fright. On one occasion an electric bulb exploded in the footlights, sending the flock scampering in alarm. Billy, however, was unperturbed. He takes so great an interest in his work that during the run of "The Prodigal Son," he often witnessed the play during rehearsals from the stalls. Now he is resting at Edgware, and is looked upon as one of the family, having free run of the farmhouse. He is seen in the photo at afternoon tea.



## Sunday Reading

### Cheerfulness

A **CHEERFUL** man is preeminently a useful man. He does not cramp his mind nor take half views of men and things. He knows that there is much misery, but that misery need not be the rule of life. He sees that in every state people may be cheerful; the lambs skip, birds sing and fly joyously, puppies play, kittens are full of joyance, the whole air full of careering and rejoicing insects; that everywhere the good out-balances the bad, and that every evil has its compensating balm.

*You must take joy with you, or you will not find it, even in heaven.* There is good philosophy in saying "laugh and grow fat." If everybody knew the power of laughter as a health tonic and life prolonger, the tinge of sadness which now clouds the American face would largely disappear, and thousands of physicians would find their occupations gone. It is not the troubles of to-day, but those of to-morrow and next week and next year, that whiten our heads and wrinkle our faces.

When Garrison was locked up in the Boston city jail he said he had two delightful companions—a good conscience and a cheerful mind.

How true it is that if we are cheerful and contented all Nature smiles with us; the air seems balmy, the sky clearer, the earth has a brighter green, the trees have a richer foliage, the flowers are more fragrant, the birds sing more sweetly, and the sun, moon and stars all appear more beautiful.

The busy bee stops not to complain that there are so many poisonous flowers and thorny boughs in his path, nor that disgusting bugs and flies are but soiling the flower from which he would gather sweets, but buzzes on, sucking up honey wherever he can find it, and passing quietly by the place where it is not.

God is glorified not by our groans, but by our thanksgivings; and all good thought and action claim a natural alliance with good cheer.

Christ the great Teacher did not shut Himself up with monks, away from temptations of the great world outside. He taught no long-faced, gloomy theology. He taught the gospel of gladness and good cheer. His doctrines are touched with sunlight, flavored with the flowers of the field. The birds of the field and happy romping children are in them. True piety is cheerful as the day.—Extracts From "Pushing to the Front," by Orison Swett Marden.

### When Things Go Wrong

WHEN things go wrong, what is the first thing that most people do? The question is easily answered, isn't it? They think that no one could possibly ever be so unfortunate as they; that they are always having heavy burdens thrust upon their helpless shoulders, and in the face of it all they ask, "Is it worth while?"

Is it worth while? A thousand times, YES! This would be a mighty strange world indeed if life were nothing but "sunshine and roses." Don't you think so, too? In the time of trouble let us not forget our Heavenly Father who is always ready and willing to lead us a helping hand if we will but ask Him. No matter how trivial our sorrows, let us take them to God and ask His comfort and help, His guidance and love. It is in the time of misfortune and sorrow that we need most to keep strong our faith. And whatever happens, keep cheerful.

I want to tell you a little story that I heard some years ago, and one which has left a great impression on my mind. A young business man who had toiled hard and unceasingly to buy a home for his wife and little daughter was suddenly called out of town. During his absence, one cold wintry night, his little home burned to the ground, only the walls remained standing. When he heard it, he became despondent and was on the point of committing suicide when the mailman brought him a letter from his little daughter. Tearing it open, he read:

DEAR PAPA:—

I took my little school chum to see our home that was burned, and it looked so pretty, all covered with ice and snow. I wish you could see it. Much love from  
Your little daughter,  
MARGARET.

The father smiled when he had finished reading it, and putting it carefully in his pocket, thanked God for the letter from his baby that had broken the spell which had overshadowed him and which might have been the ruin of the happy little family.  
F. M. E.

### Going to Church

THERE are still towns in this country of ours in which it is the custom for almost everybody to attend church. In these, on Sunday mornings when the first bell rings, doors open on every street and people dressed in their best step from their homes with happy faces intent on seeking a place of worship. Unfortunately, the good old custom is no longer universally observed in our large cities. Too many different streams from the Old World have met and mingled in the cosmopolitan centers, and there has been too large an infusion of a pagan element to keep the old landmarks unimpaired. People from alien shores, trained often with no regard for religion, have come to us looking for an asylum from oppression. Our own people, growing richer, have also grown more worldly, and there has been a gradual neglect of church privileges on the part of those who should set a good example.

It is undeniable that the members of society who are most to be depended upon for upholding the laws, the families who make the real strength of a nation, the friends it is most desirable to know, have the habit of going to church. It is hardly too much to say that the self-respecting people in a neighborhood are those who may be found regularly in the pews on Sunday morning. To be identified with a church is, therefore, to be connected more or less intimately with the best men and women in the vicinity, the kindest, the most sympathetic and the most thoughtful. There is no better way to find friends in a strange place than to look for them in a church selected carefully and attended regularly.

Those who make it their habit to be in the pew on Sunday may be poor or rich, may be learned or illiterate, may be traveled or provincial. These attributes make no difference, because the people have in common this uplifting fact that it is their custom to keep holy the Sabbath and to worship the Lord in His house on His day. This single excellent custom helps to make them desirable companions and good folk to know.

It is pleasant, too, glancing at the face of the minister in the pulpit, to see what encouragement he receives from beholding his congregation arranged before him, in their accustomed places in the old-fashioned family pews. Some of us can contribute very little in money to the running expenses of the church; some are aware that they have no special gift of eloquence or persuasiveness in the prayer meeting. If only those who feel discouraged in recognition of a lack could realize the help they give by their personal presence they would better comprehend their worth on the score of punctuality and responsibility.

"A Sabbath well spent brings a week of content" is a homely distich. Its truth has been verified in the experience of thousands. One advantage of going to church on Sunday is discovered on Monday, on Tuesday and on Wednesday, for the week's work starts better, proceeds more smoothly and leads to more favorable results when honor has been paid to the Lord in the assembly of His people on the day of rest.—Christian Herald.

### "The Blessings of the Night"

WE TALK of the terrors of the night, the awful stillness of the night, but how often do we think of the blessings of the night?

If we could but frame our ideas correctly we would find the night as full of blessings as the day. We would realize that every hour in the day is filled with a busy rush for food to eat and clothes to wear and money to defray our many expenses.

The night is our quiet time, our time to put aside the cares of the day and draw near to God and commune with Him, the time to seek His help and the strength which alone comes from Him.

It is at night that we fight most of the great battles of life. Our conscience becomes quickened and we make our decisions for right. Some of our noblest and best thoughts and highest ambitions are born in the stillness of the night.

The silence of night has no terror for the man who retires for a short while from the world and communes with his own soul and his God. It is in that great calm that God speaks to him and guides him through his difficulties and cares.

When Night has drawn her shades, and all Nature is at rest, let us in the privacy of our closets commune with God and thank Him from our hearts for the night.  
A. S. T.

## Right Dairying

Means *particular* watchfulness over the cleanliness of every utensil—lest souring impurities linger there.

The only way to make sure of their sweet, clean, condition is to *sterilize* pans, pails, separator, churns—everything that dairy products touch—daily or twice daily with GOLD DUST and water. GOLD DUST is a positive antiseptic that goes deep into hidden places—routs every germ.

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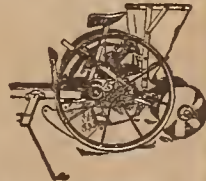
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**Make at Least \$1,000.00 Per Year** above all expenses. If you are not satisfied with your present income, we want to show you how to increase it.

If you think you can fill the position, lose no time in writing us at once for full particulars, as your territory is liable to be occupied at any time. We don't want to hear from colored people, women or old people. We don't want to hear from those under 21 or over 50 years old. Each applicant must be in a position to furnish one or two good horses to conduct the business. We are willing to pay good big money to the right kind of men who are willing to devote all their time and energy to the business, according to our instructions.

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FARM AND FIRESIDE wants to give to every person who accepts the offer below a handsome set of pictures of our wonderful battleship fleet just returned from its 40,000-mile trip around the world.

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Farm and Fireside has been the leading farm and family paper of America for thirty-two years. It gives the farmer and his family the very best reading matter that money can buy. It helps, instructs, improves. It is clean from cover to cover, and every month prints and circulates more copies than any other farm paper in America. That shows how much it is liked.

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# MADISON SQUARE

## Dressmaking Lesson

WHEN the spring fashions are definitely settled, two distinct types of walking skirts will be in vogue. One skirt belongs to the more elaborate street costume and just touches the ground all around, being a particularly graceful skirt, and the other is the trotteur skirt, which we have had with us for so many years. This skirt belongs to the strictly tailored costume and escapes the ground full two inches. Both of these skirts are alike in the fact that they are extremely close fitting, and both types are illustrated on this page.

Because of the adaptability of the Madison Square Patterns, the same pattern may be used for the making of these two separate skirts, so that for ten cents a woman really has two skirt patterns.

This pattern, Band-Trimmed Six-Gored Skirt, No. 1293, consists of five pieces. The front gore is lettered E, the side gore M, the back gore H, the trimming band F and the belt A.

The letters are perforated through each piece of the pattern, in order that they may be easily identified. The different gores in a skirt look so much alike that an amateur is apt to confuse them, so the perforated letters are of great assistance.

Smooth out the pieces of the pattern carefully before placing them on the material. Lay the edge of the belt, marked by triple crosses (XXX), on a lengthwise fold of the material. Place the front gores, side gores, back gores and trimming bands with the line of large round perforations in each lengthwise of the goods. Be careful to cut out all the notches and mark the perforations before removing the pattern pieces from the material.

### To Make the Band-Trimmed Skirt

Join the gores by corresponding notches. Finish a placket at the center back seam as far as the single notch. Be sure to have the hooks and eyes in the placket quite close together, for the closing must be absolutely invisible. There are no inverted plaits in this skirt to conceal the placket.

Form the tucks, front and back, by bringing the corresponding lines of triangle perforations together. Baste on these lines, then stitch, and press flat. Particular care should be given to the pressing of these tucks, because the edges should meet, and in this way conceal the seams beneath them.

Before going any further with the skirt, try it on, in order to see that it fits properly. If it is necessary to make any alterations, take in at the side front and side seams, but do not attempt to make any changes at the center front or back. Take in just a little at each side seam, in order to retain as nearly as possible the original shape of the gores.

After the alterations have been made, joint the skirt to the belt as notched and fasten at the back.

Finish the trimming band and arrange on the side and back gores. Bring the upper edge of the band to the lines of small round perforations on the skirt. The front end of the trimming band is indicated by the line of large round perforations.



No. 1151—Surplice Waist With Tucked Sleeves

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four and seven eighths yards of twenty-two-inch material, or three and three fourths yards of thirty-six-inch material, with one yard of tucking.

No. 1152—Skirt With Pointed Overskirt Effect

Pattern cut for 22, 24, 26 and 28 inch waist measures. Length of skirt all around, 42 inches. Quantity of material required for medium size, or 26 inch waist, nine and three fourths yards of twenty-two-inch material, or six and one fourth yards of thirty-six-inch material.



No. 1280—Princess Dress in Empire Effect  
Sizes 34, 36, 38 and 40 inch bust measures. Material for 36 inch bust, twelve and three fourths yards of twenty-two-inch material, with seven eighths of a yard of tucking for trimming.



No. 1238—Apron With Large Side Pockets  
Pattern cut in one size.

A NEW idea for the mother who is clever with her needle, and who wants to make baby a dainty flannel wrapper, is to not only embroider the edges of the gown in a solid color, but to work a pretty design over the front of the yoke.



No. 1294—Baby's Wrapper

Pattern cut in one size.

The very softest and daintiest of flannel is the best material to use for this little wrapper, with the scalloped edge hand embroidered.



No. 1290—Tucked Shirt Waist

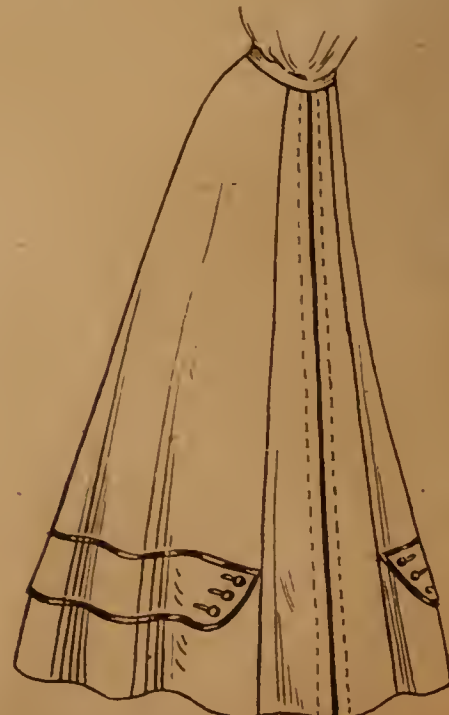
Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four yards of twenty-seven-inch material, or three yards of thirty-six-inch material.

## MADISON SQUARE PATTERNS

For every design illustrated on this page we will furnish a pattern for ten cents. The Madison Square Patterns are very simple to use. Full descriptions and directions come with the pattern, as to the number of yards of material required and how to cut, fit and put the garment together. The pattern envelope shows a picture of the garment. All of the pieces of the pattern are lettered, so that even if the collar in the pattern should look like the cuff, there is no possible way of mistaking one for the other, for each bears its own letter identifying it.

Send orders to the Pattern Department, FARM AND FIRESIDE, 11 East 24th Street, New York City. When ordering, be sure to comply with the following directions: For ladies' waists, give bust measure in inches; for skirt, give waist measure in inches; for misses and children, give age. Be sure to mention the number of the pattern you desire. Satisfaction guaranteed.

A distinctive feature of the Madison Square Patterns is the originality of their designs. They are always up to the moment in style and yet they are never extreme.



No. 1293—Band-Trimmed Skirt

Copyright, 1909, by The



# PRACTICAL PATTERNS

By  
Miss Gould

## To Make the Walking Skirt

The illustration of this skirt shows it in walking length, clearing the ground fully two inches. In cutting out the walking skirt cut off the lower edge of each gore by line of large round perforations. It is not necessary to cut off the pattern in order to make the skirt, because you might want to use it later for a longer skirt. Just pin the pattern on the material in the regular manner and mark through the large round perforations for the lower cutting line. There is no trimming band on the walking skirt; indeed, few of these shorter skirts are trimmed with bands or folds this season.

If desired, this skirt may be made to open in front instead of at the back. This is easily done by sewing the center back seam from belt to lower edge and finishing a placket in the center front seam. The usual depth of a placket is twelve inches, but a woman with small hips does not always require such a long opening; in fact, some plackets are only nine inches long. When you try on the skirt find out if the placket is too long for comfort, and shorten it if possible.

Very few of the season's new skirts are finished with hems. Most of them are faced with self fabric. If you have sufficient material to make it so, the facing should be bias and four inches deep. If not, you can have it straight or a trifle circular in shaping.

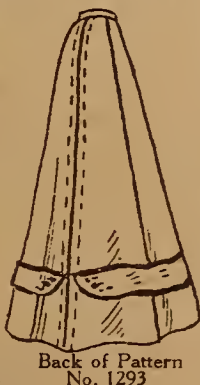
In facing a skirt, like the band-trimmed model shown on this page, the work should be done invisibly. Cut the skirt off just a seam's width longer than the length you desire. Then stitch the facing to the lower edge, placing the right sides of the skirt and the facing together.

Place the skirt flat on a table, turn up the lower edge of skirt, and baste flat. Then pin the facing to position. Use plenty of pins. Then baste with a very fine stitch. It is well to press the facing before hemming it up, invisibly. Then of course it must be pressed again when the skirt is finished.

Now the facing on the walking skirt is done in quite a different manner. The skirt should be turned up the desired length and basted just as near the extreme lower edge as possible. Then three fourths of an inch should be allowed on the inside and the remainder of the material cut away. Press the edge flat and then catch stitch around the bottom. The lower edge of the facing is finely hemmed by hand, but the upper edge is firmly machine stitched.

## No. 1293—Band-Trimmed Six-Gored Skirt

Pattern cut for 22, 24, 26, 28 and 30 inch waist measures. Length of skirt, 42 inches all around. (perforated for walking length). Quantity of material required for medium size, or 26 inch waist, four and one fourth yards of thirty-six-inch material, or three and one half yards of fifty-four-inch material. For walking length three fourths of a yard less will be required.



Back of Pattern  
No. 1293



No. 1293—Walking Skirt



No. 1277—Russian Suit With  
Sailor Collar

Pattern cut for 2, 4 and 6 year sizes.

MANY of the children's dresses for spring have detachable sleeves with a cap oversleeve, which may be removed for warm weather, leaving the short cap. Baby sacques with kimono sleeves are worn, and among the new accessories for baby's toilet and comfort are kid and also linen booties with lacings at the side.



No. 1095—Misses' Housework Apron  
and Cap

Pattern cut for 12, 14 and 16 year sizes. Quantity of material required for medium size, or 14 years, eight and three fourths yards of twenty-seven-inch material, or six and one fourth yards of thirty-six-inch material.

## No. 1219—Combing Sacque

Pattern cut for 32, 36 and 40 inch bust measures—small, medium and large. Quantity of material required for medium size, or 36 inch bust, two and three fourths yards of twenty-two-inch material, or one and three fourths yards of thirty-six-inch material.

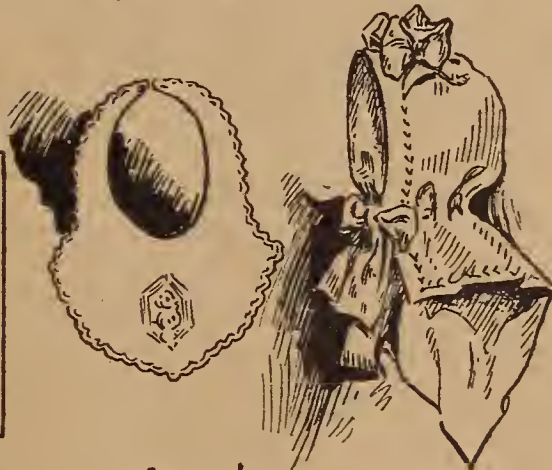
## No. 1220—Dressing Sacque With Scalloped Front

Pattern cut for 32, 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four yards of twenty-seven-inch material, or three yards of thirty-six-inch material.



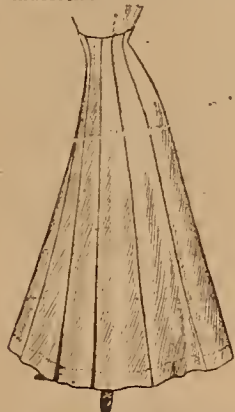
## No. 1292—Shirt Waist With Tucked Sleeves

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, five yards of twenty-four-inch material, or four yards of thirty-six-inch material.



## No. 1298—Baby Accessory Set

Pattern cut in one size. Quantity of material required for the hood, three fourths of a yard of twenty-seven-inch material; for the booties, three eighths of a yard of eighteen-inch material, and for the bib, one half yard of eighteen-inch material.



## No. 1207—Thirteen-Gored Corselet Skirt

Sizes 24, 26, 28 and 30 inch waist measures.



## MADISON SQUARE STYLE BOOK

Are you accustomed to see the style book of the Madison Square Patterns? If you are, of course you realize its value to you in making your own clothes. The new style book, better and bigger and more attractive in every way, will be out March 20th. Send your order for it now. Enclose four cents in stamps, and address your letter to the Pattern Department, FARM AND FIRESIDE, 11 East 24th Street, New York City.

This style book will make you familiar with all that is newest in the spring fashions. It will tell you all about clothes for the little folks as well as the grown-ups. The smartest clothes any mother can make for her children are those from the Madison Square Patterns.

Here is our latest liberal offer: We will give any two Madison Square Patterns for sending two yearly subscriptions to FARM AND FIRESIDE at the regular price of thirty-five cents each. Your own subscription may be one of the two. When ordering, write your name and address distinctly. We will send FARM AND FIRESIDE one year, new or renewal, and any one pattern for only forty cents.

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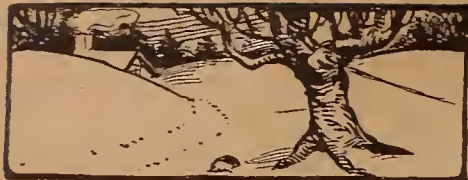
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## Young Folks' Department



### The Letter Box

DEAR COUSIN SALLY:—I want to be one of your cousins, too. I live in Illinois, seven miles from Hoopston, and am fourteen years old. I have two sisters and one brother, and we all have jolly times playing in the snow. Brother Ross has a sled, and we have lots of fun coasting down the hill.

We always keep flowers in winter to make the home bright. Don't you just love flowers?

I will close now, with a great deal of love to you and the cousins.

Your cousin,

RUTH CLEM.

DEAR COUSIN SALLY:—I have been thinking that I would write to you ever since you became my cousin. I am delighted at the idea of having a new one. I am so glad that you love children and take pleasure in entertaining them.

I like all the letters and stories that I find printed in "Our Young Folks' Department." We have been taking FARM AND FIRESIDE for ten years, and we will continue to do so, as we all like it so much. With much love I am

Devotedly,

MARY S. ALEXANDER,  
Chase City, Virginia.

DEAR COUSIN SALLY:—I would like to be one of the cousins. I am ten years old and am in the fourth grade at school.

About two years ago the state of Utah held a reunion of the Blackhawk War veterans. It was estimated that ten thousand people visited our city for the three-days celebration. There were all kinds of amusements, such as parades, meetings, dances, horse races, etc.

On the last afternoon there was a sham battle in the same place that one was fought during the Indian war. The people gathered on a small hill overlooking



By Mabel Lundgren, Age Ten, Orlando, Florida

the battle field, about two blocks from the city. About two dozen Indians attacked an emigrant train, drove off the cows, captured the woman who was herding them, killed and scalped a man right before our eyes, captured a man, his team and wagon, tied him to the wheel, and set the wagon on fire.

The battle looked so real that many were brought to tears. About twelve thousand people witnessed the fight. The city furnished hay for over one thousand horses for the three days.

Your cousin,

LEAH MADSEN,  
Ephraim, Utah.



By Emma Bell, Age Fourteen, Cambridge, Ohio

### The Duane Necklace

By L. Ten Broeck

FRANK DUANE, back home from school with a football-wrenched knee, rang the call bell impatiently again and again. Why didn't Maggie or James or old Peter himself come when he wanted a fresh drink of water and another book? If it were not that his widowed mother had pleaded so anxiously with him not to leave the extension chair until her return, he would help himself, as he always had. Something must be wrong. There was a circus in town. Perhaps the servants, taking advantage of their master's absence, had stolen out to see the parade. He could hear the music now, wafted from the main street a mile away. If so, oh, if so, then he was in charge. It was his duty to watch and guard. What would Cousin Hannah, dainty, pretty Hannah, who had gone with grandfather and his mother to that tiresome will proceeding, think if the house was burglarized while he lay useless upstairs? There was the solid plate in old Peter's pantry—the famous diamond necklace in the library safe!

With many a moan lurking behind his gritted teeth, Frank hobbled to the room on slipper and bandage. He leaned over the balustrade, and looked down the circular well to the main hall. The silence and gloom of a deserted house! Then a lighter shadow danced across the hall and faded away, as the creaking sound which had accompanied it ceased. Some one had opened the library window from the veranda, and stepping inside, had closed it again. Down went Frank to the second, to the first floor, sliding on the rail!

Bandage and slipper, though clumsy, were noiseless. Like another shadow, Frank swung from behind the curtain of the library door, and peered inside. The shades were again closely drawn, but the electric lamp on the desk was shining. A man on his knees at the safe was turning the knob with the confidence of one who could master the combination. "I thought as much," cried the man triumphantly, as the door yielded.

The man, his back still turned, stepped to the desk, a green case in his hand. Presently he held up to the light the diamond necklace, its brilliants emitting rainbow rays. Then, in the arrogance of success, he looked about, this way and that, his white teeth gleaming.

Frank gasped. He knew that handsome, evil face. He had studied it often,

more handsome, less evil, on the portrait tucked away in the garret with other discarded family effects. The man was his father's stepbrother, Stephen Maxon, who even now was fighting to sustain the forged will of his mother (grandfather's second wife), which was made out to leave him the diamond necklace, an heirloom for more than two hundred years. Maxon replaced the diamond necklace in its case, which he set on the desk. He took from his pocket another case, and from it produced another necklace, seemingly of diamonds. Indeed, as he held it to the light, its brilliants emitting rainbow rays, it seemed to Frank an absolute mate and copy of the heirloom. Thus Maxon, in the failure of his plot through the forged will, might without suspicion reap the proceeds of the genuine necklace, while the worthless imitation might as unsuspectingly be treasured for years by the family as the precious heirloom.

Maxon's actions quickly verified this view. He put each necklace in the other's case. Then he bent over them gloatingly, as if the cleverness of the fraud was as dear to him as its reward would be. In another moment the counterfeit would be locked up in the safe, while he would be off with his spoils!

But Frank, under supreme excitement, was quicker even than that other moment. Back of the alcove were shelves against the wall, closely packed with books. Frank thrust his hand between two books on the top shelf, and gave a vigorous push toward the door. Down crashed the heavy dictionary to the floor!

At the sound Maxon poised, white and breathless, a revolver in his hand. Then, catlike, he crept to the door.

With like caution Frank flew to the desk, put each necklace into its own case, and slipped back into the alcove, like a shadow, just in time.

Maxon returned, unstrung, to the desk. He thrust the worthless necklace into his breast pocket, and locked the precious necklace in the safe. With a hurried glance at his watch, he stepped out on the veranda, and away forever from the old house that had once been his home.

With a moan, no longer stifled behind gritted teeth, Frank sank insensible to the floor. When he came to, it was to gaze into his mother's tender face and to watch dainty, pretty Hannah's eyes glow with admiration as he faltered the story of his adventure.

### Post-Card Exchange

HERE is a list of the names of the boys and girls who would like to exchange post cards with the cousins:

Blanche Abrams, age thirteen, Aqueduct, New York. Neva Durham, age thirteen, Defiance, Ohio. Zenobia M. Sisler, age fourteen, R. F. D. 1, Box 96, Roanoke, Virginia. Beth Murdock, age fourteen, Kingsville, Ohio. Roscoe E. Hey, age fifteen, R. F. D. 3, Overbrook, Kansas. Germaine I. W. Malcolm, age ten, R. F. D. 12, Altona, Illinois. Elma Johnson, age twelve, Baldwin, Kansas. Genevieve Lewis, age twelve, Beech Hill, West Virginia. Irma Haverstick, Cashmere, Washington. Donovan McKinney, age eleven, R. R. 2, Harrod, Ohio. Ina Waterstreet, age twelve, R. R. 3, Underwood, Minnesota. Mary Lawrence, age eleven, R. F. D. 7, Pontiac, Illinois. Rhene Robson, age thirteen, Galva, Illinois. Ethel Irene Clark, age fourteen, P. O. Box 48, Hermiston, Oregon. Minnie Trobough, age ten, Oakland, Iowa. Elmer Grimes, age sixteen, Avoca, Texas. Edith B. Hankle, age ten, R. F. D. 1, East Schodack, New York. Dixie Shumate, age nine, R. R. 6 Chillicothe, Missouri. Fred White, age sixteen, Lynchburg, Missouri. Alison Richardson, age eleven, Lompoc, California. Dorothy E. Kennedy, age thirteen, Goodyears Bar, Sierra County, California. Katharine Kramer, age fifteen, R. F. D. 1, Salona, Pennsylvania. Katy H. Johnson, age eleven, Adin, California. Flossie M. Babbitt, age twelve, South Londonderry, Vermont. Anna B. Stauffer, age thirteen, R. F. D. 1, Milford, Nebraska. Edith Alexander, age fourteen, R. F. D. 5, Mansfield, Ohio.

If you want to exchange cards with any of these boys and girls, all you have to do is to send them a card and say you saw their name in the "Post-Card" column and would like to exchange cards with them.



By Opal Slagle, Age Thirteen, Delta, Ohio

### Monthly Prize Contest

OUR prizes this month are for: Drawings or Photographs. Subjects: "My Pets," "The Lake in Spring Time," "Verse." Subjects: "April Fairies," "In the Woods," "Rain Drops."

For the best work under any of these heads Cousin Sally will give prizes as follows: A box of paints, a sailboat, a book, set of paper dolls, and a bisque doll.

Put your name, age and address on all work, and send before March 20th to Cousin Sally, FARM AND FIRESIDE, 11 East 24th Street, New York City.



By Lawrence Raub, Age Eleven, Olean, New York

### Cousin Sally's Letter

DEAREST BOYS AND GIRLS:—How I wish that Our Own Page were three times as large, so that I could publish every one of the splendid drawings that you sent me! But I know you will be pleased to see a few of the best ones—and this is the surprise that I said I had for you. I knew you would be surprised, and I am so glad now that I did not tell you about it last time. It is much more fun to wait, isn't it? Just think! a page made up almost entirely of your own work. I feel mighty proud of you all, I can tell you, and I am confident now that your work is going to grow better and better. Don't you think the drawings are excellent? And just see how splendidly they reproduced! It looks almost as though an experienced artist had drawn them.

I know that you boys and girls who have not entered our fine contests will feel encouraged to try for one of the prizes when you see what splendid work the others are doing. These contests are instructive and helpful, and even though you shouldn't win a prize, the practise will help you. The subjects chosen in this month's contest call for original work. There is nothing finer to train the mind to think and act for itself than work which requires originality.

Be enthusiastic, boys and girls! Try just for the sake of seeing what you can do—if for nothing else. No matter how crude your work may be, send it along. Do your part and in time your efforts will be rewarded.

This is a big, busy, hurrying world; it has no time for laggards, so wake up, those of you who have been asleep, and just show Cousin Sally that you can work if you want to. Faithfully always,

COUSIN SALLY.



By L. S. Greene, Age Fourteen, Freeport, Ohio



# The Soul of Honour

[CONTINUED FROM PAGE 28]

"I am sorry, sir, you meet me like this," said Marcus, his smothered rage creeping out in his injured tone.

"My dear fellow, I am frank, and say what I mean, and you never do; that makes conversation a trifle difficult between us."

"Frankly, then, I am engaged to her, but it cannot go further without your countenance and—support."

"Then it cannot go further," said Vannister coolly. "There is, of course, absolutely nothing to say against your choice. You are not in a position to marry; you are dependent on an allowance from me, which I see no reason to increase. I told you once that it would have to do for your needs, and I meant what I said. I mean it now. Nothing in your character or your career so far has led me to consider you fit for further responsibility, and therefore I do not see my way to helping you."

"I dare say we could live on our income if you could come forward in the matter of making a settlement on Hyacinth."

Vannister shook his head.

"I have given you my reasons," he said. "You have nothing to do but to accept them. The money is mine, and that is an end of it."

Marcus started to his feet, his hands clenched, his blood rushing to his brain under the impetus of fury.

"It is not the end," he said, breathing hard. "You say you like frankness; well, I will be frank. I am your heir, for you have brought me up, and you have recognized me as such. I demand to be treated as such in this matter of my marriage. The money is yours now, you say, and that is true; but it will be mine some day. Neither you nor any one else can prevent that. You would have done so if you could. I know, but it was not within your power. Therefore, I say, treat me fairly now, and in accordance with the position I shall one day hold."

Vannister held up his hand.

"One moment," he said. "Not so fast, please. The estates are entailed on you in one eventuality—that of my dying childless. That eventuality is now less of a certainty than it was, for, Marcus, I am a married man."

"Married!" The room reeled around him, the floor heaved up and down; he caught at the chair back for support.

"I had a wish to avoid publicity," continued Lord Vannister, "and so I told no one of my action but those it was necessary to tell. I had intended telling you more gently, but you forced it from me."

Still no word came from him, and in the silence the velvet curtains over the doorway shook and parted, and a woman came into the room, a beautiful woman in shimmering white, with diamonds glowing like a circle of light on her white neck, and red roses at her breast. A woman in whom he recognized the innocent girl he had tried to ruin.

Vannister held out his hand.

"My wife," he said proudly.

## CHAPTER XIV.

MARCUS experienced one of those desperate moments which luckily come to men but seldom in their lives, and it was worse for him in this instance because he was utterly and entirely in the dark as to how this curious, this incredible thing had happened. Never once had he mentioned Lord Vannister's name to Honour during their brief wooing. His reasons had been clear for keeping it from her, for with his own inner knowledge of his intended behavior to her, he had foreseen that the day might come when she would be his enemy, and he was not going to put any weapon ready to her hand. How, then, was she here?

The question flashed with lightning quickness through his brain, and suddenly the answer stood out clear and distinct. There was but one link between the penniless girl in London and Lord Vannister far away in the fastness of his Yorkshire home, and that link was Taunton.

He had brought them together, and this was his revenge.

He looked at the woman before him with amazement, the woman he had treated so badly, that he hardly dared to think of it, but whom he had never for one instant imagined would ever cross his path again, and lo, there she stood in front of him, appearing in a new light, clothed in the radiance of success, not the poor hunted creature he had cast aside, but the mistress of this great castle, which he had so long looked upon as his own inheritance—wife of the man to whom he owed everything, and from whom he expected everything. He

stepped forward with graceful self-possession, and with an inward shudder he took the hand held out to him, the hand so often passionately kissed in those early days. Honour was half dazed. She would not speak, not for all the world could she have forced herself to utter words of welcome. The hideous mockery of them would have choked her before they could pass her lips, but she bent her head as she looked at him with the peculiar far-off look about which he had been wont to tease her in the former days.

"You have a look as if you saw further than most people," he had said to her once, and when she had said she wished she could alter it he had told her not to try, for it suited her pale spiritual beauty. Now that look was upon him again, bringing a thousand poignant recollections, and he, too, dropped her hand, unable to utter a word.

Vannister watched them in astonishment, and with his keen eyes he saw this strange wordless greeting between his beautiful wife and his scapegrace cousin. Watched it and knew that it had some meaning, although what he could not guess. Were they strangers, or had Marcus met her before? He put this idea from him almost with horror, for to entertain it would be to allow that his true Honour was acting in a manner that was not genuine, and that never for a moment could he believe. To do so would be to make the temple of his new existence crumble at its very foundations. Still some expression of his surprise at their attitude found its way to his lips.

"Come," he said, "you are very silent, both of you. Have you nothing to say to Lady Vannister, Marcus? Honour, have you become dumb?"

At the sharp imperious note in his voice the girl started and trembled. She gave a pale scared look around her, a look which ended in a nervous smile.

Marcus was more ready, for he saw that unless the miserable secret were to be discovered then and there he must come to her help.

"Well, sir," he said, "make a little allowance for two people who have each had a new relation thrust upon them at a moment's notice. I see that my new cousin is as surprised as I am, but I hope she will accept my respectful homage and congratulations." He paused, the lies were easier now that he was fairly started. The almost frantic excitement of the situation had fired his blood, and he felt as he had felt years ago in Bengal when he had seen his first tiger, and when life itself hung on the steadiness of his hand, the sureness of his aim.

"Besides which," he added more easily, and with a touch of simplicity which calmed Vannister's doubts, "as Lady Vannister is now one of the family I may say to her that she interrupted an argument which was not going well for me. Perhaps if she would interest herself on my behalf, things might go more favorably for me."

Honour held her breath. Surely, hypocrisy and audacity could go no further. He actually claimed her help, following up his words with a glance of desperate appeal.

The words themselves seemed to give Vannister a suggestion.

"That is not a bad idea," he said, "and worthy, perhaps, to be acted upon."

He turned to his pale wife.

"Honour," he said, "Marcus came to ask me to make settlements upon his future wife, and he claims that he is entitled to the greatest generosity on my part. He appeals to you and in so doing for once shows some sense, for now it is not only my money, but our joint fortune which is in question, so you certainly ought to have a say in the disposal of it. Now, therefore, he shall plead his cause with you, and you shall decide whether he is likely, in your opinion, to turn over a new leaf or not. Women are supposed to have a good insight into these kind of matters, so we will test yours, my dear, only remember that in helping him, if you really wish me to do so, you are taking away from yourself."

Was he laying a trap for her? For one hideous moment Honour thought he must be, yet even if he were, there was nothing to be done, and dreadful as a tête-à-tête with Marcus was, anything would be better than this conversation under her husband's searching eyes, which held a question in their depths.

So far Marcus agreed. The suggestion and the way it was made recalled Vannister's hardest dealings with him, but he felt he must have an explanation with Honour.

The bronze of his cheek had paled a

little at the unveiled contempt and insolence of Vannister's voice and he was cursing him inwardly as he answered, "Thank you, I shall be grateful for Lady Vannister's advice."

Vannister looked fixedly at them both. Now that he himself was leaving them together he would have wished to stay. He moved to the door, however, opened it and walked down the long corridor and into the garden by a side door, then on to the terrace where he had taken his first walk with Honour. The place was delicious in its peace and stateliness, but there was no peace in his mind. He was fighting with a hideous thought, a thought so terrible that if he had allowed it a real foothold in his brain it might have led to madness.

This thought was telling him that he who preached to others of folly was himself guilty of a folly and rashness almost unheard of. He had been deceived once, jilted by a woman he madly loved, and to whom he had given a very passion of adoration. That was past, but he had spent years in trying to forget, years in doubting his fellow creatures and in attributing to them base and common motives. At last a voice of limpid truth, a face of heavenly sweetness had dawned upon his gray, solitary world. A fair uncrowned queen with no jewels but her youth, her beauty, her goodness, had wandered into his sad life and he had no heart to let her go again. She had used no arts, but with the sweet simple magic of her womanhood, she had bound him her slave, and he . . . he had her now at last for his wife, had won her so completely that she had consented to become his without fuss, or delay, or any of the trappings and ceremonious festivities which he loathed. Oh! surely, surely he had read those dear eyes rightly when he had looked into them under the silver moon, and had kissed her lips with a betrothal kiss.

"Do not think too much of me," she had whispered then. "I am no saint, dear, but I will do my best, God helping me."

"I do not want a saint," he had answered, "but a true woman, and you are that, my sweetheart, I know. You would never deceive me, never lie to me, love."

He had remembered how she had lifted those dark mysterious eyes to his in the sweet-scented darkness, and how she had trembled in the prison of his arms.

"I will be true in all things," she said. "I am a poor thing, but I am all yours."

He had carried these words of hers in his innermost soul, and they had changed the world for him. Why, then, had a tiny cruel doubt crept in already, darkening the beauties of his home, and making the world a place of darkness and despair, just because of a look in his wife's eyes to which he held no clue?

[TO BE CONTINUED]

## IN THE BACK OFFICE



As you use this number of FARM AND FIRESIDE, we believe you will agree with us that it is the best number we have ever published. Please note we say "use," not "look through" or "read." If FARM AND FIRESIDE isn't a useful proposition above everything else, it is missing its calling.

Not an easy job to make a paper useful as well as entertaining to every one of its hundreds of thousands of subscribers, who are scattered over this country, from Maine to Texas—conditions vary so. That we are accomplishing just this thing; that we are finding out and publishing the facts and the information which all of our large family can use in common, the interesting, helpful letters on page 2 bear testimony.

Just bear in mind that expression, "Information which can be used in common." We shall have more to say on that subject. It signifies Unity, Democracy and Unselfish Generosity.

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## The Old-Fashioned Fireplace

### What Our Readers Have to Say About It

#### Biscuits Baked in a Dutch Oven

How strongly the article entitled "The Old-Fashioned Fireplace," which appeared in your good paper a month or more back, appealed to me; how fast my mind traveled back to those happy, bygone days!

First you asked how we baked biscuits, and Johnny cake, and also how we did the washing and ironing.

To bake biscuits, we had what we called a Dutch oven. It was an iron receptacle about twelve or fourteen inches across, with straight sides, flat bottom, and an iron lid to fit. The legs were about three inches long, and the oven had an ear on each side, in which the pothook fitted so that we could lift it up. This oven was placed on the hearth. Live coals were taken from the log fire and put under the oven, and also on the lid, in order to heat the oven. We mixed the biscuits with sour milk and soda, and when they were ready to be baked, the lid of the oven was lifted with care, so that no ashes would fall in. The lid was dusted, the biscuits put in to bake, and in about fifteen or twenty minutes at the most we had something to eat which was good enough for a queen.

I can answer all the questions you have asked, for I have spun the yarn to make my clothes, made all my own linen and blankets, have baked Johnny cake, biscuits, also the good old buckwheat cakes. Yes, indeed, it is many a fine yard of linen I have spun, and yet to-day I can run the sewing machine and use a typewriter as though I had always been used to them.

"Hope," Ohio.

#### Grandfather's Fireplace

I CANNOT tell you how much I enjoyed reading "The Old-Fashioned Fireplace," which appeared in your valued paper some weeks ago. How well I remember the old-fashioned fireplace that we all loved so well. And many the happy time we had gathered around it after a hard day's work, telling stories, cracking nuts and chatting until the clock on the shelf warned us that it was bedtime.

My grandfather's fireplace did not have a crane to swing out for the dinner pots and then swing back again. It had only a heavy bar of iron built in the chimney, and everything had to be lifted inside and placed on the pothooks hanging on the bar. Imagine lifting a five-gallon iron wash pot to hang over a hot fire, or putting in clothes and taking them out again! Not only was the wash water heated in the high iron pot, but the clothes had to be boiled in it. When ironing day came we heated the irons by turning them up on the hearth to face the fire. How many women to-day could stand the heavy lifting or the continual stooping? Still, hard work doesn't seem to shorten one's life, for a great-aunt of mine whose early life was spent over a fireplace is still living at the age of eighty-four.

Speaking about the cheerfulness of these old-fashioned and beloved fireplaces, how many houses to-day would have room for one? Near us there is an untenanted house in which there is a fireplace about six feet square, and it extends through the first story and to about shoulder height in the second story, where it is finished with a mantel.

Your article touched a sympathetic spot in my heart, for it brought back many happy recollections.

Mrs. Wm. S. H., Maryland.

#### Fun Around the Fireplace

A LITTLE over sixty years ago I was one of nine children living with my parents on a farm. Our house was heated entirely by two old-fashioned fireplaces, and all our cooking was done in a brick oven and in the pots and the kettles which hung on the crane. At night we banked our fires, and in the morning opened them, throwing on kindling and wood, and with a puff or two of the old bellows we had a roaring, crackling fire in less than a second.

And the happy evenings! We children danced and frolicked over the old kitchen floor until it fairly shone and glistened! When we grew to be young men and women, many a fine party we had! While the girls made candy, the boys would crack nuts and roast corn, and what with plenty of cider to drink, and plenty of apples to eat, not one of us worried about the hard times or fretted over the morrow.

Our lamps consisted of tallow candles, which we made by dipping wicks looped over rods into a kettle of hot tallow, letting the sticks cool, and then repeating the process until the candles were large enough.

Christmas was generally a great event in our happy household, for no matter how hard the times, Santa Claus never failed to leave us each a stick of candy or some oranges and nuts.

D. H., New Jersey.

#### Cherished Fireplace Memories

MY FATHER was born in 1804, and I have heard him tell of the grand old stone fireplace in the living room of his early home—one of the old-time generous hearths where seats were on either side, extending from the rear wall of the fireplace to the front wall of the chimney.

When the great fire needed a back log, double doors on each side of the exposed part of the room were opened, and a pair of oxen would draw into the room great logs of hard wood eight feet in length. The logs were rolled off the sled and back into the cavernous depth of the great fireplace; then the team was driven out and the doors closed and banked until time for next replenishing.

When my father was married, in 1825, he took his bride to a home he had built largely with his own hands, in which was a fireplace of more modest proportions. Alongside the open hearth was built a brick oven in which my mother did most of her cooking. The wonderful pumpkin, mince, apple and chicken pies my mother used to turn out from that brick oven would excite envy in the minds of some latter-day cooks and would excite the admiration of any epicure.

To come direct to the charm and beauty, the comfort and healthfulness of our old fireplace, what a flood of memories cluster around its blessed hearth? Many the hour I spent stretched prone upon the great hand-braided rug spread before the fire. In those days "the perils of the sea" were in evidence in every home, and gaudy ships riding marvelous waves graced (?) many a wall and stirred the ambition of growing lads. Perhaps, because of these wonderful pictures of "life on the ocean wave," many a New England boy of those days strayed away to sea; "running away to sea" it was then termed. All the scenes portrayed in the pictures on the walls were duplicated in that open fireplace.

One of the greatest charms of the old fireplace was that sense of fading day and deepening twilight when with only the light from the open fire the play of light and shadow upon the walls and in among the beams of the ceiling played such "fantastic tricks" as to awaken every emotion, stir every fancy and deepen and strengthen the ties that bound the growing family circle.

How it added to the charm, the homeliness and the fervor of the Thursday evening prayer meetings and the Tuesday evening class meetings! I well remember one good brother who, ordinarily lacking power of expression of even the simplest thought, would, when he rose to give "his experience," fix his eyes upon that open fire and, haltingly at first, soon wax eloquent in his remarks and close with such a burst of spiritual enthusiasm as would lead several good sisters to break forth with their favorite hymn, "Come Thou Fount of Every Blessing." When the sewing circle met at our house, how the sisters gathered around that open fire and made their tongues run, and took two stitches in local family affairs to one with their needles.

I remember well the day when little sister was taken suddenly ill, how she wanted to lie where she could see the fire; and when her little trundle bed was brought out and placed at a safe distance, how her eyes seemed to belie the condition of her little body as she lay and watched the flaring flames and betimes commented on the beautiful pictures she saw before her. The time came when the little eyes closed forever on the beauty of the life she enjoyed. A little later the frail form was placed in its beautiful little white casket and the neighbors came in and the minister was there; the little home dwelling with its little tenant was placed in the middle of the room and a good fire was in the fireplace, the space between the casket and the open fire was free and clear, and though the fire was bright and glowing when the minister began speaking, little by little it went down, and when the services were all over just one little golden coal gleamed brightly in the midst of the darkened embers, and so remained until the little body had passed forever from our home.

A thousand memories cluster around that hearth, some of the richest and most precious life can give—the mother's love, the father's pride and strength, the hopes of youth, the love and pledges of young manhood and womanhood.

A. H.



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## Plowing, Harrowing and Planting

By W. Milton Kelly

**G**ood plowing is the foundation of successful agriculture. The crop depends as much upon the preparation of the ground to receive the seed as it does upon the nature of the soil itself. All thinking farmers know that many times a soil that is naturally poor produces a better crop than a superior soil, simply because it has received a better system of cultivation. Poor soil, in fact any soil, may be improved by thorough tillage. I think I am not wrong when I say that the quantity and value of our agricultural products could be more than doubled in less than ten years by a more intense and better system of cultivation.

As a rule we are plowing too shallow to obtain the best results; but the deepening of the soil should be gradual, for many soils have been rendered unproductive for a number of years by turning up at one time, large quantities of subsoil and plowing under every trace of organic matter so deep that it cannot receive a favorable action of the air, heat and moisture.

### Deep Soils Are the Best Crop Producers

All of our ordinary farm crops are benefited by a deep soil. On a well-drained soil deep plowing is alike beneficial during both wet and dry seasons. In a wet season the surplus water is carried below the plant roots, hence the crop is less subject to damage than if the water be held near the surface. On a naturally wet soil shallow plowing is to be preferred, as it keeps the water near to the surface, where it will either run off or be carried away by evaporation.

During a dry season a deep soil is an advantage for various reasons. It has a greater capacity for producing a large crop than a shallow soil, even if both are alike in their physical condition and possess the same degree of fertility. It possesses a greater water-holding capacity in time of severe drought. A soil nine inches deep will have twice as much water-holding capacity as a soil six inches deep. Deep soils furnish ideal conditions for the plant roots, as they go down in search of food and moisture. Fertilizers should be well intermixed the full depth of the soil, so that the plant roots will have a tendency to go down into the soil after their food.

### Fall and Spring Plowing

Soils that are naturally loose and friable are no doubt benefited by being plowed in the fall for spring crops, but

stiff clay soils that are inclined to puddle and bake should be plowed in the spring. On many farms where the soil has a tendency to run and wash during the fall and spring, fall plowing is detrimental unless a cover crop is employed to prevent this soil erosion.

All soil calculated for spring planting should be plowed early, especially when a large amount of organic matter is being turned under. The advantages gained by early plowing are that it plows up more lively and friable. A better furrow can be turned with much less labor for the teams and men. If the soil is subject to a hard freezing after it is plowed, it is better prepared for a more perfect pulverization by the tools used in fitting and cultivating. Another important consideration in regard to early plowing is the fact that the soil has an opportunity to settle by natural means before it is time for planting, and the organic matter has time to become partially decomposed in time to assist in the early growth of the plants. The moisture has a chance to accumulate and be stored for use in time of drought. Stubble land and land that has been occupied by a hoed crop the previous season had best be

For small spring grains it is essential that the soil be compact, especially if grass seed is sown at the time the grain is being drilled.

There is no danger of the soil being made too compact if the ground is kept harrowed as fast as it is plowed. Every time the ground is harrowed will be doubly paid for in the yield of grain at thrashing time.

### Cultivate Before Planting

In preparing the corn field much of the work of cultivation can be avoided if the soil is brought to the best possible physical condition before the field is planted. The soil must be reasonably compact and as level and smooth as it is possible to make it, especially if the planting is to be done with a check-row planter. There is no planter made that will do good work on a poorly fitted field. This is an important point in starting a corn field, and no amount of after care and cultivation can make amends for a poorly fitted field at planting time.

In preparing the potato field the newly plowed sod should be kept rolled down as fast as it is plowed, to conserve the moisture, and then harrowed sufficiently to

potatoes demands that the soil be brought to the best possible physical condition before the field is planted.

### Planting

However well the ground may be plowed and prepared for their reception, it is useless for us to expect good crops unless we plant good, plump, healthy seeds that possess a strong vitality and are free from all hereditary diseases. All small grain seed, such as oats, barley, rye and wheat, should be run through a fanning mill and all weak and light seeds and all dirt and weed seed separated.

If smutty grain seed can be treated so as to kill the smut spores and not affect the vitality of the seed, the succeeding grain crops will be free from smut. There are a number of machines on the market for treating seed grain for smut that bring the seed in contact with the formaldehyde solution and will thoroughly rid the grain of smut. A home-made apparatus will do just as good work if care is used in the methods of treating. A solution of formaldehyde should be made in the proportion of one pound of formaldehyde (forty per cent pure) to forty-five gallons of water. This is sufficient to treat one hundred bushels of wheat and seventy-five or eighty bushels of oats or barley. An easy way to treat the grain is to spread it on the granary floor and spray the solution over it with a common sprinkling can. The seed should be treated on a warm day, and while being sprayed it should be shoveled frequently, until thoroughly moistened. Some cover the whole heap with some old blanket, to prevent the evaporation of the solution too soon. Remove the sacks or blankets in a few hours, and dry the grain before sowing. Treating seed corn for smut does not do any good.

In planting small grains it is essential that the seed be drilled at an even depth, so that the stand will be uniformly even over the whole surface of the field. In planting corn the size of the seed kernels should be uniform, so that the planter will drop a uniform number in each hill, for it is a great disappointment to obtain an uneven stand of corn. In planting potatoes none but the best varieties should be used for seed and no piece should be planted that does not contain two good, vigorous eyes. With the soil properly plowed, harrowed and planted we are reasonably sure of good crops, even though the season may not be the most favorable.



Good Plowing

planted soon after it is plowed, but sod ground that is to be planted to some hoed crop will be greatly benefited by early plowing and frequent cultivation for a number of days or weeks before planting time.

### Preparing the Seed Bed for the Crop

The first important step in preparing the soil after plowing is to level the surface with a roller, so that the lumps and sods will be in a position to be cut and pulverized by the disk harrow and the other implements used in fitting the soil.

fill the interspaces between the sods or furrows with loose soil, to check the loss of moisture by evaporation. Then the field should be allowed to lay for a few days or weeks, so that all weed seeds that have been turned up may have a chance to germinate before the field is planted. Just before planting time the field is cut lengthwise and then crossways with a disk harrow, and then harrowed both ways with a common spring-tooth harrow until the seed bed is thoroughly fitted. To grow and develop to perfection a highly organized market crop like

over the whole surface of the field. In planting corn the size of the seed kernels should be uniform, so that the planter will drop a uniform number in each hill, for it is a great disappointment to obtain an uneven stand of corn. In planting potatoes none but the best varieties should be used for seed and no piece should be planted that does not contain two good, vigorous eyes. With the soil properly plowed, harrowed and planted we are reasonably sure of good crops, even though the season may not be the most favorable.

**Your Last Chance to Get Our Special Offer on Page 24**



# What's the Matter With the Farmer?

An Analysis of the Report of the Commission on Country Life—By G. C. Streeter

Do you recall the editorial in the last issue of FARM AND FIRESIDE on "What's Wrong With the Farmer?" If not, get out your paper and read it again. It is the most important editorial that you have read in a long time.

I have read many comments on the report of the Commission on Country Life, and that editorial in the last issue of FARM AND FIRESIDE is the only utterance on this important subject that seems to answer in a satisfactory manner the question "What's the matter with the farmer?"

I consider this matter of so much importance that I am writing this article to reinforce what your editor has already said.

I want every farmer to know "what's the matter with the farmer." I want every farmer to thoroughly understand the real cause of the difficulty of making a living on a farm, because I know that when you understand the real cause you will remove it.

The first cause of all the farmers' troubles is clearly stated in that editorial. Your editor grasps the situation. He tells the facts.

Those facts I wish to emphasize and reinforce. You have the point of the whole matter, and that point I shall try to drive in and clinch.

## Something is Wrong

The commissioners have definitely decided that there is something wrong with the farmer. They point out in detail many evidences of this trouble.

They say that you lack knowledge of exact agricultural conditions, and of the possibilities of your farm; that you lack schools that properly train for country life, and that you fail to secure the full advantage of such schools as you have; that you do not understand the business problems of the farm, and are unable, through lack of training and organization, to compete with the organized interests from whom you buy and to whom you sell; that you lack good roads, and that you do not sufficiently conserve soil fertility.

They clearly point out that you have no adequate system of agricultural credit whereby you may readily secure needed loans on fair terms; that agricultural labor is scarce, dear and undependable; that you lack able leadership, because the most able men quit farming to seek a larger field for their ability in town.

## Woman's Work on the Farm

They demonstrate that the lot of woman on the farm is hard, dreary and monotonous, and they prove quite conclusively that the life of the farmer's wife would be easier, happier and healthier if every farmhouse was better built, had running water, sanitary plumbing, good drainage, and was provided with sewing machines, washing machines, dish washers and other labor-saving devices.

## An Old Story

But is this news to you? Was it necessary to have a learned committee travel thousands of miles to find it out?

There is absolutely nothing new in this. You knew it, and I knew it. In fact, any one who has lived on a farm more than nineteen minutes with his eyes and ears open can't help knowing it. You have known it for years, and you have been telling it for years, and another recital of the facts even by the able and learned commission does not particularly interest or help you.

What you want to know is what is the cause of all these ills.

## The Real Cause

I have carefully read the seventy-nine pages of typewritten manuscript comprising this report. I have, somewhat carefully, examined several hundred pages of the testimony taken at the hearings of the commission, and have gone over other data from which the report was compiled. I have talked with some of the men who conducted the investigation. In the light of this examination, I believe I can answer the question "What's the Matter With the Farmer?" The answer is simple, "He is Too Poor."

Every deficiency in country life, as outlined in this report, exists because the farmer can't afford to have the things and to do the things necessary to remove these deficiencies.

The cause of his poverty is not far to seek. He is robbed by a horde of hungry vampires who fatten at his expense. They

catch him coming and going. He is swindled when he sells, and he is robbed when he buys.

The one obtrusive fact developed in the investigation of the commission is the complaint of these various forms of robbery. In every part of the country, farmers of all classes denounce the injustice, inequality and discrimination of transportation companies, and the dishonesty and fraud of middlemen.

Perhaps I am prejudiced. Perhaps my knowledge of the inadequate returns the farmer receives for his labors, and my acquaintance with the means by which he is deprived of most of his product, give bias to my logic. Let me quote the report itself. "Notwithstanding an almost universal recognition of the importance of agriculture to the maintenance of our people, there is nevertheless a wide-spread disregard of the rights of the men who own and work the land. This results directly in social depression as well as economic disadvantage. The organized and corporate interests represented in mining, manufacturing, merchandising, transportation, and the like, seem often to hold the idea that their business may be developed and exploited without regard to the farmer."

"The commission has heard much complaint in all parts of the country, and by all classes of farmers, of injustice, inequality and discrimination on the part of transportation companies and middlemen. These are the most universal direct complaints that have been presented to the commission."

"It is very generally believed that favoritism is still practised in various forms to an extent that works a hardship to the small shipper and unorganized interests. What is needed now is a careful study of the railway situation, with a view to reaching and correcting abuses and practises still in existence which operate against unorganized and rural interests."

## Unjust Taxation

"It is natural that visible and stationary property should be taxed freely under the present system. It is equally natural that invisible and changeable property should tend to evade taxation. The inevitable result is that farmers' property bears an unjust part in taxation schemes."

"Dissatisfaction with the prevailing system of marketing is very general. There is a wide-spread belief that a certain class of middlemen consumes a share of agricultural sales out of all proportion to the service they render, either to consumer or producer, making a greater profit—often without risk—in the selling of the product than the farmers make in producing it. There are undoubtedly grave abuses in the system which all honest dealers, as well as all producers, should desire to see eliminated. We have received explicit statements of downright dishonesty in the handling of products by middlemen."

"We are led to believe that grave abuses are practised by unscrupulous persons and firms, and we recommend a searching inquiry into the methods employed in the sale of products on commission."

This is the important part of the commission's report. It shows a system that robs the farmer of the greater part of the wealth that he produces and leaves him too poor to help himself. It reveals the injustice and extortion of the railroads, corporations, trusts and middlemen.

## Poverty in the Report

Perhaps I put this too strong. Perhaps the farmer is not poor. Let us see. I will again quote from the report of the commissioners:

"The drift of poverty and degradation is pronounced in many parts of the country. In every region a certain class of population is forced to the poor lands, becoming a handicap to the community and constituting a very difficult social problem."

"There are two great classes of farmers: Those who make farming a real and active constructive business, and those who merely passively live on the land, often because they can do nothing else, and by dint of hard work and strictest economy manage to exist. Each class has its difficulties. The problems of the former class are usually those arising from the man's relations to the world at large. The farmer of the latter class is not only powerless as against trade in general, but is also more or less helpless in his own farming problems."

"In some parts of the country this condition and the social results are pathetic, particularly where the farmers, whether

black or white, by reason of poverty, lack of credit, and want of experience in other kinds of farming, are compelled to continue to grow cotton. Large numbers of Southern farmers are still obliged to mortgage their unplanted crop to secure the means of living while it is growing, and as a matter of course they pay exorbitant prices for the barest necessities of life."

"The tenants have little interest in the lands, and move from year to year in the vain hope of better luck. The average increase of the tenant-farmer family growing cotton is about one hundred and fifty dollars a year, and the family usually does not raise its poultry, meat, fruit, vegetables or breadstuffs. The landlords in large sections are little better off than the tenants. The price of the product is manipulated by speculators. The tenant farmer and even the landlord is preyed upon by other interests, and is practically powerless. The effect of social stratification into landlord, tenant and money lending merchant still further complicates a situation that in some regions is desperate and that demands vigorous treatment."

"While these conditions are especially marked in the cotton-growing states, they are arising in all regions of a single-crop system, except perhaps in the cases of fruit regions and vegetable regions. They are beginning to appear in the wheat regions, where the yields are constantly growing less, and where the social life is usually monotonous and barren. The hay-selling system of many parts of the northeastern states present similar results, as does also the section growing corn for the general market, when stock raising is not a part of the business. In any case, whether north or south, it has become a matter of very serious concern whether the farmers are to continue to dominate and direct the policy of the people, as they do indeed in large parts of the more prosperous agricultural sections, or whether, because of the deterioration, they shall become a dependent class or shall be tenants in name, but laborers in fact, working for an uncertain wage."

## Testimony Before the Commission

Let me also quote a few statements made before the commission.

At a hearing held at Salt Lake City on December 3d, George M. Canny said, among other things, "Country life must be made more profitable in order to improve conditions on the farm. Uncertainty of remuneration causes boys to leave the farm."

At the same hearing J. C. Duffin said, "Farmers need cheaper money and more of it to develop many resources within their reach if they had funds."

Doctor Thomas of the Utah Agricultural College testified that farmers pay eight and nine per cent on farm mortgages and nine per cent on ninety-day loans. He says, "Our farmers need capital more than they do savings banks."

At the hearing in Denver on December 7th, Mrs. Riddle, Secretary of the State Grange, testified that in many places schools are open only four months in the year; that rural districts should have school nine months in the year, but that farmers were unable to pay for so long a term, hence they must have outside aid. She told of one section in the state where half the homesteaders were obliged to leave, as they were not able to make even a living.

At the same hearing Mrs. F. M. Stoot, County Superintendent of Schools, said, "The people in the penitentiary are better off than a great many of the farmers on the dry farms."

Let us now examine in detail some of the deficiencies enumerated in the commission's report, and see whether these deficiencies are the result of poverty.

## Soil Depletion

The average farmer fully understands that if he takes from his land in the form of crops more than he returns in the form of fertilizer, he will decrease the fertility of his soil, and necessarily decrease the returns for his labors. In spite of this knowledge, many farmers annually take from the farm more than they put back. As a result, both farm and farmer get poorer.

The reason for this is evident. It is perfectly clear that if what a man receives for his labor, added to what he receives as income on invested capital, does not enable him to live, he must use up part of his capital. This is exactly the condition of many of our farmers. They can-

not by such agricultural methods as they possess make a living on the farm and keep up the farm.

## The Farmer Must Live

What is the result? They must live, and the only way they can live is to consume part of their capital. The capital of the farmer is his land—the producing capacity of the soil—the land fertility. He begins to consume this capital. He sells what the land produces. With the proceeds he buys the necessities of life, and if there is any balance he uses it to improve the farm. But as the net returns for his salable crops often give him only a living, and a bare one at that, he can put nothing back on the land. The result is, the farm gets poorer and poorer. No one can continually draw on a bank balance and put nothing in the bank without exhausting his bank account.

## The Farmer's Bank

The fertility of the soil is the bank balance of the farmer, and if he continues to draw from this bank balance without adding to it, he must inevitably exhaust it.

If you want to maintain the fertility of the soil you must give the farmer such prices for his products as will enable him to live, and to put back on the soil as much as he takes off. At present you do not do this. In many cases either the farm or the farmer must starve.

## The Reason for Soil Depletion

The principal reason for soil depletion is that the farmer does not receive enough for his product to enable him to maintain his family and his farm. While in some cases it is undoubtedly true that poor farms are the result of poor farming, in more cases it is true that poor farming is the result of poor farms. In any section where farmers are prosperous you will find them doing all they can to maintain—yes, to increase—soil fertility. Most farmers realize that the soil is their bank, that the soil fertility represents their bank balance, and they are all anxious to have the largest possible bank balance.

It sounds well to advise farmers to use fertilizers and to stock their farms, but fertilizers cost money and it takes capital to buy stock. When a man's entire capital is tied up in a mortgaged farm he has to make that farm produce something to pay interest, taxes, and to buy the necessities of life.

If you will increase the returns for what the farmer sells, you will enable him to maintain the fertility of his soil.

## Good Roads

All farmers realize the need of good roads, of very much better roads than they have. They know that better roads mean increased profits and decreased labor, as they are able more easily to haul their crops to market and haul back the needed supplies to the farm. Nothing adds to the farmers' profits, comfort and enjoyment more than good roads, and they know it. They also know that good roads cost money and that improved roads mean increased taxes.

When the farmer's entire family has to work from twelve to fourteen hours a day, year in and year out, to make a living and save enough to pay interest and taxes, he will oppose anything that means more taxes, no matter what the ultimate benefit may be.

Poor roads are always found among poor farmers. It is usually true that the most prosperous farmers have the best roads. Whenever the farmers in any section experience a period of prosperity, you will notice an immediate improvement in their roads. I have traveled the country roads in more than forty states and territories, and I know what I am talking about. If in any section you will increase the net earnings of the farmers, they will improve the roads.

## The School

The most intelligent critics of the country school are the farmers themselves. For many years they have known that they need better schools and different schools. They have declared that much taught in the schools was useless and that many of the ideals were false.

The farmers regret their inability to give their children better education. You and I know of many a man who has done double work in order to let his boy stay in school a little longer, and we know of many a mother who has broken down her health trying to give her girls a little more education. In many cases the one

[CONCLUDED ON PAGE 9]



# More About Education for Real Folks

By Forrest Crissey, Author of "The Country Boy," "The Making of an American Schoolteacher"

As a body farmers are a mighty practical sort of folk—that's the way they get their living, and those who are not practical don't get anything fancy in the shape of a living. Because of this hard-headed, direct and sensible trend of mind, it is not difficult for me to imagine that every farmer who read my former article put the paper down with the remark:

"Yes, that's what we want, all right enough—but how are we going to get it? How can we farmers put our shoulders to the load and give it such a boost that the passage of this law providing ten million dollars for vocational education will be practically assured?"

Certainly I hope every farmer who read the other article, did say substantially this—for if every voting reader of FARM AND FIRESIDE got to that point and will go the rest of the way, *nothing can stop the enactment of the Davis Bill!* And what do I mean by going the rest of the way? Just this: Write about six or eight letters and do a few other things involving about as much time and trouble as would be required to trade a horse with a neighbor.

## How to Get Needed Legislation

But before going into the details of just what to do and how to do it, a word or two ought to be said on the general proposition of getting needed legislation for farm and agricultural interests. It's well worth while. If the farmers of this country had always realized their power in this direction and known how to apply it they would have been fifty years ahead of where they now stand in the matter of legislation. There is not a single definite and legitimate piece of legislation which the farmers of this country cannot get if they are only agreed upon it, act in harmony and do the few simple and easy things which are here suggested with reference to the Davis Bill for vocational education. This getting of right and needful legislation is all a matter of knowing human nature and acting accordingly.

In spite of his official dignity, your United States Senator, your "congressman," your Speaker of the National House of Representatives, your state senator and your state representative are only human beings—and no matter how high each climbs or how far he happens to get his ear from the ground, the farmers of this country are numerous enough and strong enough to make so big a noise in his official ears that he will drop everything to listen to the call. But there is one condition which must be met absolutely before this effect will be realized: The call for congressional or legislative action must be for a single, definite and concrete thing. And right there is where the farmers have an immense advantage in putting up a Macedonian cry for legislation to provide for education for folks—they are, according to all accounts, of one mind in their prayer; they want the same thing, and they all want it, and they want it now. And the Christian name of the thing they want is the Davis Bill. That's all they have to ask for, and it's as definite and clean cut as a college yell—consequently there's no one to blame but themselves if they fail to do it all *together* and in a tone of voice which will shake the dome of the Capitol.

## Let Congressmen Hear the Voice of the People

A great deal has been said about congressmen and legislators who fail to hear and obey "the voice of the people." Did it ever occur to you that they seldom get a chance to hear a real all-round, all-together and first-handed expression from the people they are supposed to represent? What they do hear, for the most part, is the eloquence of special pleaders with axes to grind—axes in which the real people have about as much interest as they have in the bolos carried by the self-governing savages in the cane brakes of Cuba. Then there are the newspapers, of course. They are supposed to be the real thing when it comes to *vox populi*. But the congressman generally knows what interests and individuals own the newspapers in his district, and he is not so cock sure as he might otherwise be that their editorials express the voice of the people. Besides, when all these expressions get down to Washington and penetrate his official ear—each one advocating a little different thing—do you blame him for feeling that the voice of the people is decidedly scattering and indecisive and that in the confusion of

tongues the thing for him to do is to play safe, sit tight and wait for a special revelation which will show him just what the real folks who elected him do want?

Put it from another angle: Suppose that you yourself had just been elected to Congress and wished to make a good record and an honorable career—wouldn't you be slow to jump in and support a certain measure directly affecting the interests of almost every individual in your district until you actually *knew*, at first hand, that this was the thing which your people demanded, the measure which would be acceptable to them? Of course you would! Turn the proposition around: Suppose that you should walk up the Capitol steps one bright morning and find in your desk a hundred personal letters from a hundred individual farmers in your district saying: "I am a voter in your district and a farmer. The Davis Bill is before Congress. I want to see it passed, and so do my neighbors, and this letter is to ask you to give it your influence and your vote. We farmers, almost to a man, feel that this bill is about as important to ourselves and to our children as any piece of legislation that has been before Congress in many years, and we look to you to do all in your power to support this measure and secure its passage."

Now, after you had read at one sitting about fifty letters from the voters of your district, all pitched in the same key and all asking the same thing, wouldn't you see a light? Wouldn't that hazy feeling be considerably dissipated, wouldn't you say to yourself, "There's nothing scattering or confused about this; this is the real voice of the real people, of *my* people, and I'd better get busy!"

Of course you would! And suppose that the next day brought two hundred more letters to your desk, and the next day five hundred, and so on until you had received four or five thousand such letters, every one of them ringing the same note, hitting the same spot—why, that mass of letters would look bigger to you than a prize hay stack, and you would have no more question about your call to duty than a crossroads preacher who is suddenly invited to take a big city pulpit with two or three mission branches, an assistant pastor, a paid choir and a corps of trained charity workers.

## Legislators Want to Please the People

There is no congressman, no legislator, who can stand out against this kind of an expression of the desire of his people. Generally he doesn't want to; he would be glad to give them what they want if he could only *know* what they want and that they all—or practically all—really want it. And even if he has other inclinations and desires he's going to cache them as promptly as a farm dog buries a bone after a full meal! Petitions and resolutions are all right and have a certain value—but the congressman knows how that game is played, how easy it is to get a neighbor to sign something that he doesn't read so long as there is no financial responsibility attached; he knows how easily a smooth man can get an audience to "resolve" almost anything, and so he doesn't lose any great amount of sleep over a petition that would choke a horse or a resolution passed by an organization which is both numerous and influential.

But when the individual letters from real folks come in upon him like the flakes of an old-fashioned "sugar snow" in a Vermont sap bush—then he recognizes that the voice of the people has really reached him and that he has got to do something about it right away quick. And by the time these letters overflow his desk and he has to hire two or three extra stenographers to answer them, the call looks unanimous to him.

When you come to think of it, two or three hundred letters will overflow quite a desk and stack up amazingly. Perhaps you think I put too much stress on this matter of writing individual letters to the men who make the laws and on the impression which these letters will make upon the mind of the congressman or the legislator? If so, *unthink it*, for the facts are all on my side! The individual letter hooked up with the multiplication table is a team that will pull a heavier load of legislation than any other on the road. It will swing the most obdurate congressman when all other pinch bars fail to budge him. But to repeat, all the average congressman needs to know is that the real folks back home and practically all of them want a certain piece of legislation enacted for the public good.

Once sure of this, he is as strong for it as they themselves are. Where there is no possible doubt on this point there is seldom any indecision.

All this will apply as much to any other piece of farm legislation as to the Davis Bill, and for that reason it's doubly worth the telling in detail and with emphasis. It's well to know the rules of the road and to fix the points of the compass and the principal landmarks well in mind, for there's no telling how soon we may wish to go over the route again.

## Do Not Neglect the Lid Holders

So far I have spoken only of applying the mustard plaster of personal correspondence to the representative from your own district and the two United States senators from your state. This is where the ordinary layman stops, even when he is really waked up and out after results. But this doesn't go far enough, by any manner of means, for the simple reason that it leaves out certain big factors in the legislative game—the *men who sit on the lid*, the men who are put in high positions because of their leadership and because of their ability to *hold things down*. The Speaker of the House of Representatives is about the most conspicuous and powerful of all the lid holders—and by this I do not mean that he is hostile to the Davis Bill or to any other measures in the interest of agriculture or of the education of folks now pending in the national House of Representatives. For all I know, he may be heart and soul for the Davis Bill and for all other measures which the farmers of this country desire to have passed by the present Congress. But all the same, Uncle Joe Cannon, the Honorable Speaker of the House of Representatives, is "from Missouri," although his home is in Danville, Illinois; he must be *shown*, and shown hard, before he lifts the legislative lid wide enough to let anything go through—this is *what he is there for*—and as he holds the whip hand over all legislation, it will never do for the farmer to forget Uncle Joe Cannon when he takes his pen in hand to let the lawmaker know what bills the farmers wish to have go through.

Then there is another man only a little further down the line—down the line of lid holders—the Hon. Charles S. Scott, of Kansas, chairman in the House of Representatives of the committee on agricultural affairs. Mr. Scott is another statesman who must not be overlooked by the farmer who would really exert a practical influence in shaping legislation. Again let me repeat that probably Mr. Scott, being from a farming state, is just as anxious as any farmer who reads this paper to have the Davis Bill enacted at once. But this does not make Mr. Scott any the less desirous of having the voice of the people registered in the form of individual letters, all neatly filed, tabulated and tucked away in his pigeon-holes—for then he can show a reason for the faith that is in him and can meet any querulous objections which the opposition is disposed to raise and squelch them under a wet blanket of spontaneous epistles straight from the soil and from the hand of the farmer voter!

Still another statesman to be remembered in this letter-writing campaign is the Hon. Francis E. Warren, who will soon succeed Senator Hansbrough as chairman of the committee on agricultural affairs in the United States Senate. To leave him out would be to miss another important lid holder; and as comparatively few United States senators have the smell of the soil on their clothes, it is all the more important to make your wants and wishes known to this powerful legislator in the upper house of Congress.

Consequently, when you sit down to write to your own representative in Washington—the man from your own district—make a clean job of it and write also to both United States senators from your state, to Hon. Jos. G. Cannon, Speaker of the House of Representatives, to Hon. Charles S. Scott, chairman of the committee on agricultural affairs in the House, and to Hon. Francis E. Warren, chairman of the committee on agricultural affairs in the United States Senate. This will only take part of your Sunday afternoon at most, and if all the farmers who read this article will follow these suggestions it will be the most profitable and the most notable Sunday afternoon's work they have ever put in—for it will make farm history in this country for the next hundred years to come, and no mistake about it!

But this is not all you can do to boost the passage of the measure which will put aside ten million dollars for the education of real folks, for the training of the boys who will have to grow things and make things and for the girls who will have to make the homes—the country and the village homes—and for both the boys and the girls who will be called upon to teach others the arts of agriculture, of mechanical industry and of household economy. Under the provisions of the Davis Bill it is up to the states which benefit by this enactment to do something to have a share in this great educational work. This means that the attitude of the legislature of your state is mighty important in the eyes of the men in Congress who will vote upon this measure. It means, too, that you can exert a powerful leverage on the vote on the bill in Washington by getting your own legislature to take the right steps and take them at once. This adds another job to your Sunday afternoon at the writing desk.

## In Other Words, Write a Letter

to the representative or representatives from your district in the lower house of your Assembly, to the senator from your district in the state senate, to the chairman of the proper committees in both houses, to the speaker of the lower house and also to the Governor of your state. Then, just to round out the job and "make a baker's dozen," write another letter to your State Superintendent of Public Instruction. If your elbow still has a little surplus power, send a good strong letter to the head of your state agricultural college. Ask them one and all to get busy in the interest of the Davis Bill; tell them that you and the other farmers are for it, that it is the greatest measure in the interest of *education for folks* that this country has ever had put up to it in concrete form; that yourself and your neighbors feel strongly about this matter, and that while you do not often mix up in legislative affairs, you want to see this thing put through and kept clear of politics or any other handicaps or hindrances; that it is, in your opinion, the biggest thing on the boards, because it affects the future of your children, of your neighbors' children, and, in turn, of their children. This kind of a letter will draw blood! And it does not have to be written to kill horned cattle, either. The milder and simpler the terms in which you express yourself, the more good will it do.

## Educate Yourself on the Merits of the Bill

If you do not feel that you are fully posted on the merits of the Davis Bill and the importance of its provisions, write a letter to the Secretary of the National League of Industrial Education at Springfield, Massachusetts, and request that you be furnished with further facts. While I do not discount or qualify the emphasis which I have put upon the writing of individual letters as the most effective of all methods which the farmer can use to secure rightful legislation, at the same time I do not overlook the value and influence of other agencies. The farmers' institutes of this country command the respect of lawmakers everywhere, whether in state legislatures or in the national Congress. Only a few days ago the speaker of a state house of representatives said to me, "There is one organization to which the members of the legislature who are wise enough to have any influence always listen with both ears—I mean the farmers' institute. When a farmers' institute passes a resolution in favor of any measure before the house, you may be sure that it is read with care and given the weight to which it is entitled. There are a good many light-weight and more or less 'cranky' organizations who are perpetually appealing to the Assembly for legislation (generally of an intemperate or impractical sort), but the farmers' institutes do not belong to this class. When they speak the legislature puts its ear to the ground!" In view of this statement, I need to add that the farmers' institutes all over the country will do well to pass resolutions in favor of the Davis Bill and to forward properly engrossed and signed copies of them to the same persons in Congress, in the legislature of their states, to whom individual letters are sent.

You—the farmers who read FARM AND FIRESIDE—can get that ten million dollars for the education of real folks if you go after it according to the rules of the road that have been laid down here. There are enough of you to land it.







that will tear it to pieces, and break it up clear down to plow depth—the disk, spring-tooth, smoothing harrow, plank drag and— Do it all over again, and again if you can make it finer and looser.

The tiny fibrous rootlet of the potato plant is very tender, finer and more delicate than a silken hair, and it cannot readily push its way through clods and rough soil. It can only reach out and absorb moisture and fertility in soil particles that are thoroughly broken up and disintegrated. The better this is done, the more readily will the rootlets feed and the quicker will the crop grow and mature.

#### Suitable Fertilizers Must Be Applied

Where no stable manure is used, a dressing of some high-grade complete fertilizer should be applied broadcast before planting. Otherwise the commercial manures are applied in the furrows and mixed with the soil before dropping, if by hand, or with a fertilizer attachment on the drill, if a planter is used.

Fertilizer for this early potato crop should be made up of the highest quality of ingredients and in well-balanced combination, containing the three principal elements in something near the following proportions: Nitrogen, in sulphate of ammonia, nitrate of soda and blood (or if but a single carrier alone, then the first or last), from three and one half to five per cent; phosphoric acid, soluble and available, preferably in bone meal or bone black, from six to eight per cent, and potash, in the form of sulphate, from eleven to twelve per cent, actual. Don't buy cheap fertilizer for the extra-early potato crop; you can throw your money away or burn it up with much less labor and loss of valuable time.

#### Machine Planting is the Most Practical Method

Planting by large growers is generally done now with potato-planting machinery, which provides the cheapest, quickest and most practical means. But there are many growers who do not own or do not have access to machine planters, so the old reliable, hand-planting method is here referred to.

To "line out" the field, use a marker set at three feet. Follow this with a large single-shovel plow, opening a furrow right down to plow depth. Go twice in the row if necessary to secure depth and to take out any crooks.

The commercial manure or fertilizer is distributed evenly in the bottom of the furrow, either by hand or with one of the harrow fertilizer drills (and one of these will pay their cost in half a day's use), applying from one thousand to fifteen hundred pounds, more or less, according to the natural fertility of the soil or the amount of manure applied previously.

Follow the application with a small-toothed horse hoe with the frame closed tightly, to admit well into the bottom of the furrow, mixing the fertilizer thoroughly with the soil in the bottom and sides of the furrow. In reopening the furrow with the single shovel before planting, the manure and soil are still further mixed.

Drop the seed pieces in furrows fourteen to sixteen inches apart, singly; the latter distance is recommended, to secure more rapid growth and earlier maturity. Cover with a home-made coverer built the reverse of a snow plow, or use a horse hoe with the "wings" or hoes set to draw the soil from both sides to the center, the horse walking in the furrow.

Make the ridge over the row as high as possible. This will shed heavy rain-falls into the gutter in the center between the rows and exposes more surface to the warming rays of the sun. The ridges are easily leveled by the first passages of a heavy harrow, which will fill up the hollows with soil finer than would be secured by cultivation, as well as airing and warming the surface soil.

#### Cultivate Intensively for Best Results

There are more ways recommended for cultivating potatoes than there are sure cures for a cold; but after all, the only way is to cultivate—cultivate (every day if you can) from the time they are planted till they are finally ridged up and "laid by."

In the production of a crop of extra-early potatoes we have found by careful,

comparative work and experiment that severely intense or extreme cultivation will most surely secure the desired result—rapid growth during the season and extra-early maturity.

Just as soon as the surface weed seeds germinate (and it takes only a few days in this favorable soil), we go over the field lengthwise of the row with a spike-toothed harrow. This begins the leveling of the ridges. Two days later the same tool is used, passing this time at a slight angle with the rows. Two or three days later the field is thoroughly harrowed the cross way of the rows, leveling the surface, destroying billions of starting weeds and exposing more weed seed for germination, to be killed with the next cultivation.

Two or three days later an application of nitrate of soda is made in a broad strip over the row, at the rate of two hundred pounds to the acre, immediately after which the fourth and last harrowing is made the length way of the row. If the potatoes have not broken ground in the next three or four days, and the weeds have again started, an additional harrowing is given. Even if the plants are beginning to peep through, very little, if any, damage will be done.

Before starting the horse hoes the horse weeder is sometimes used to break up a crust after a rain and to further kill the weed-seed germs. This can often be used to advantage as a substitute for the harrow when the soil does not require deep stirring.

#### Begin to Cultivate Early

Just as soon as the plants are above ground sufficiently to follow the row, deep cultivation begins. A standard horse hoe is used, equipped as follows: Three narrow shovels, or "bull tongues," are set ahead in the frame, the large hoes on the outside rear standards set with the point out and forward (as for covering) and at a slight angle, to draw the earth away from the row. The frame is set close together. A large shovel is placed on the rear center standard, to fill up the furrows left by the hoes on each side. By this arrangement all of the soil touched is completely turned over

at least twice, thoroughly broken up and aired. The wheel is set to send the tool down deep enough to bury the hoe steels in the loose soil.

The shearing edge of the hoe is held close enough to the row to almost shave the stem of the plant, moving it about in the loose surface cutting some of the tiny lateral rootlets, and exposing most of the others, which are covered again within an instant of time.

The same close cultivation is continued the next two times, the tool being set as before, at intervals of from three to four days.

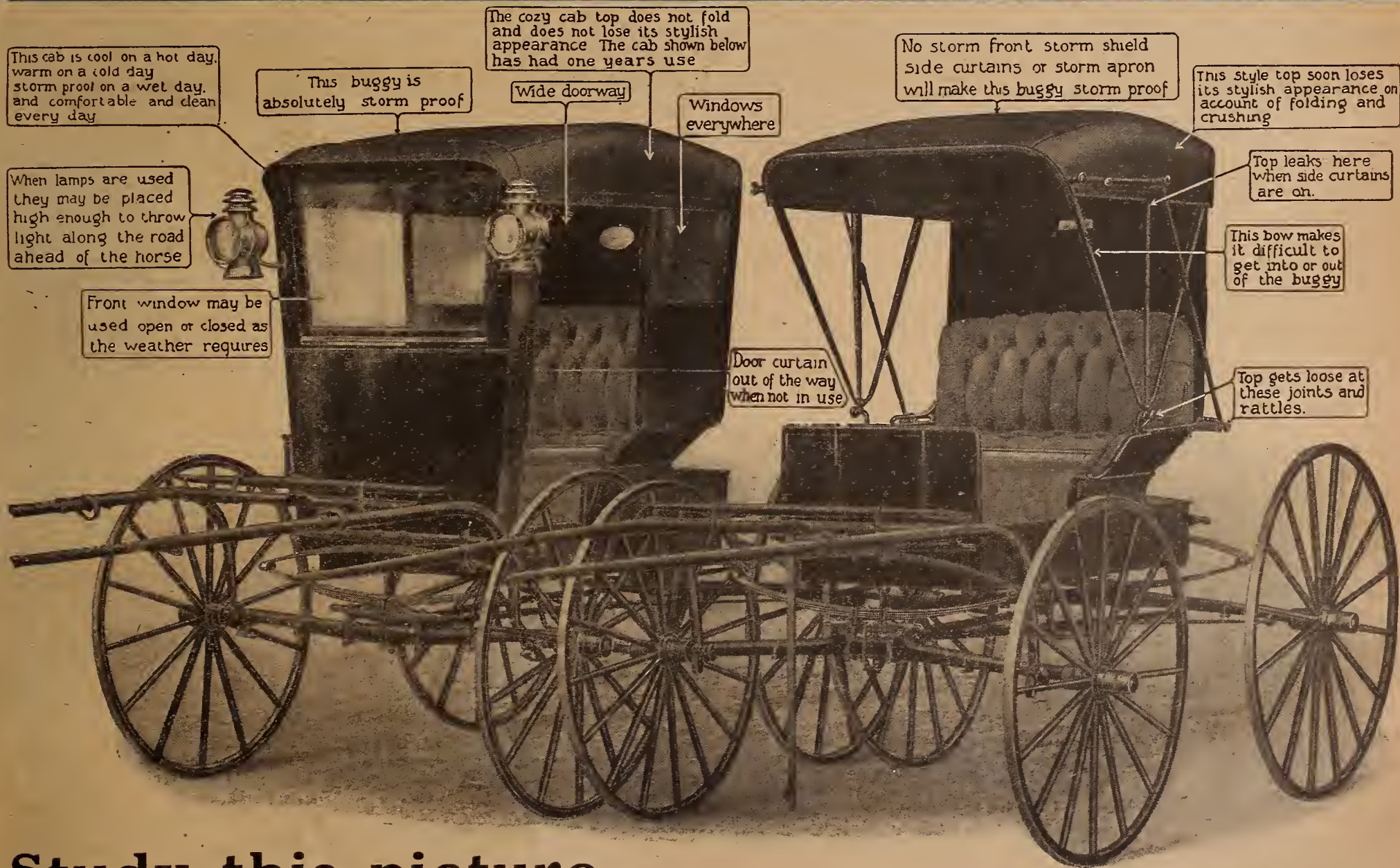
Contrary to the notions of some of the "ancients," this close, plant-moving, root-cutting cultivation during the season of early growth is in no least way detrimental to the growth of the plant or in after results. On the other hand, it is most beneficial and growth promoting, as has been demonstrated by rows left in the same field on which the older method of shallow, stay-away-from-the-plant culture was practised; these test rows being days later in maturity, aside from the fact that they required hand hoeing to cut out the weeds that were destroyed in the other rows by the close cultivation.

#### Close Cultivation is Beneficial

Cutting or breaking off some of the lateral roots while the plant is young tends to make the vertical roots more active, develops the tap roots and sends them down—or the bulk of the roots, at least—into the lower soil, where they reach moisture and the supply of plant food that has been placed in the furrow under them. It does away, too, with the exhaustion of the plant's vitality in having to send myriads of lateral feeding roots out over large areas to reach available plant food scattered in the soil between the rows. Enough of these are formed later on after the deep cultivations to take up all the surface food needed.

By this method, too, a heavy top formation is encouraged early in the season, when it should be made, leaving all the energy of the plant for the development of the tubers.

R. M. WINANS.



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# Gardening

By T. Greiner

### City Gardeners

"Does FARM AND FIRESIDE realize," asks a reader in Illinois, "that thousands of its subscribers are city people whose only farm consists of twenty by forty feet of land which they like to plant in garden stuff, and that hundreds of them do not know how to plant lettuce and radish seeds, or anything that grows in the garden?"

I am well aware that FARM AND FIRESIDE goes into many suburban homes, in more perhaps, than into the homes of professional or market gardeners. I have tried to hit all classes, but believe it may be well to give some special attention to the wants of the man with the small garden.

### The Size of the Garden

Our Illinois friend asserts that a plot of ground twenty by forty feet will supply a family of four or five with all the vegetables they can use if properly planted and taken care of. A Pennsylvanian, however, who has been a reader of FARM AND FIRESIDE for a year while living in the city, where he had no chance to make garden, and who has now moved to a country place, apparently thinks a piece of ground seventy-five by two hundred feet none too much for a family of five, for he asks how to plant this plot so as to raise enough potatoes, cabbages, beans, peas, etc., for that family.

In a general way, plants require the same conditions as to food and cultivation, etc., whether planted in a small or in a large garden, and to some extent the instructions given for the management of the same crop apply to both. A plot twenty by forty feet, however, would not go far toward supplying the needs of my family, as we are vegetarians to a greater extent than many others. The seventy-five-by-two-hundred-foot garden would come nearer doing it, and in fact is about what we should expect of a farmer's home garden, being over one third of an acre in area. Any farmer can afford to have that much, or rather can hardly afford to have much less.

Such a garden, if well kept, is the cornucopia which pours its blessings and comforts in a steady and generous stream over the daily life of the family. Much, however, can be done on the smaller plot that may be available for a garden on a village or city lot.

### What to Plant

The danger of failure in such small-garden operations lies mostly in the attempt to do too much and expect too much. Vegetables require a certain amount of room, and they will not do their best if unreasonably crowded. Our Illinois friend, for instance, says: "If an asparagus bed three by six feet is properly made, no five people in this country can eat its output. Make a hole three by five feet, two and one half feet deep, put in a layer of three inches of rotten wood chips, then two inches of good loam, over that a layer of old bones and manure and dirt, more chip dirt, more bones and manure, etc., until within six inches of the top, then fill with good loam, and plant two-year-old roots. Make the bed in the fall, and plant the asparagus roots in the spring." This is the old (an old country) style of growing asparagus, which has now nearly gone out of practice. I am an inveterate asparagus eater, and would agree to eat all the asparagus you could grow on a spot two or three times as large.

We give our plants more room, and grow better asparagus in a much easier way. It is one of the things, however, which I would have even in the smallest garden. A good way is to plant it in a row off one side, preferably the long way. If that row is forty feet long, thirty-five or forty plants would plant it, but there should be nothing planted closer than three feet on either side. I would also have, and this perhaps next to it, a few rhubarb plants, set three or four feet apart, and the balance of the row planted with strawberries. In a garden a little larger than twenty by forty the strawberry bed could profitably be enlarged.

If you also have a few currant and gooseberry bushes, which are very desirable and often quite profitable, even for home use, you will find your twenty-by-forty garden space already more than half taken up. This will leave you very little chance for growing coarse crops, such as sweet corn, potatoes, squashes, etc., and you may have to make some effort to stick in a few hills of cucumbers, melons, etc. In fact, it will in all likelihood be necessary for the owner of this little city garden to depend for his supply of these coarser or wider planted vegetables needed in his family on the greengrocer or some market gardener of the vicinity. They will not be so fresh and tender and sweet as if they were gathered in one's own garden, and they will not be in the generous supply we have them from our larger gardens, but it is perhaps the only thing that can be done.

I would also have a few tomato plants, and these, to allow of closer planting and save space, should be staked and trimmed to one or two branches and tied up. Thus they are an ornament to any garden, and they bear well and good fruit for its kind. It might be well to plant a few early peas, preferably in a bed in close rows, of the more dwarfish sorts, such as in good soil grow two or two and one half feet high, and to stick brush between the rows for support. A full family supply can hardly be expected from this small area. You will get a mess or two, and must buy what more you may want of this delicious crop. A short row or small bed of bush beans is more likely to furnish all the string beans that the family may want.

Half a dozen early cabbages (late ones you can buy), two or three eggplants, and a dozen pepper plants of several sorts, mild and hot, complete the list of such vegetables. There will then be barely enough room left for the close-planted things, especially onions from sets or seedlings, lettuce, carrots, beets, parsley, etc. These things might be planted in beds, but I would prefer to have them in rows the whole length of the garden, and this mainly because I use the wheel hoe and like a full sweep. To make it all the more convenient to use this tool, I also make my rows for these vegetables fourteen or sixteen, and in case of beets even eighteen, inches apart. A foot apart is sufficient for most of them in the miniature garden where all the work is done with the ordinary hoe.

### Manuring the Small Garden

Having thus made a general survey of the things that we will find room to plant in a garden of this kind, I wish to say a word in regard to manures. The area is small, the planting close, and comparatively big yields are expected from it; consequently plenty of plant foods must be provided for the crops, and generosity in the use of manures is even more urgently necessary than in the market garden, where wider space is allowed to all crops.



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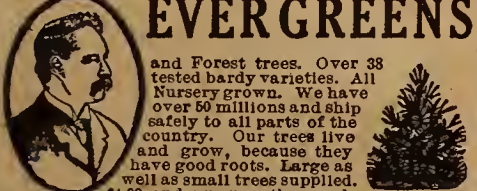
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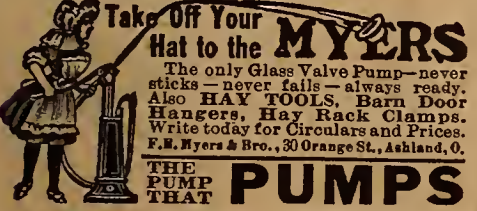
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# Fruit Growing

By Samuel B. Green

## Grapes for Jelly

A certain manufacturer of jellies in Minnesota asks if the Concord grape can be raised there successfully, as they like the juice of it for use in their jelly factory.

While Concord grapes can be raised in Eastern Minnesota, it is necessary to lay them on the ground in winter, or else they are liable to be seriously killed back. About twenty years ago the Concord grape was largely raised for the local markets and at considerable profit, but with the great development of grape growing in more favorable sections the Minnesota vineyardists had a hard time competing with them for a few years, and many of them dropped out of the business.

One of the lines of work of the horticultural department of the Minnesota Experiment Station has been the development of a grape that should be productive and at the same time sufficiently hardy to withstand the severe climatic conditions to which it would probably be occasionally subjected in Minnesota. The variety which most nearly meets with these conditions is called Beta. This is a variety in which is probably combined the qualities of the Northern Fox grape and the Labrusca. While it is very much inferior for table use to well-ripened Concord grapes, yet it is better than Concord grapes that are not thoroughly ripened, and for general home use is highly esteemed. The berries are purple and medium in size, and the bunch is compact and well shouldered. The vines are healthy and vigorous and produce heavy crops. Thirty to fifty pounds to the vine are not an exceptional yield on mature plants.

This variety is much sought after in Minnesota and is being largely planted. It is especially highly esteemed for jellies and grape juice. It seems to me that the jelly makers of Minnesota would do well to encourage the growing of this variety if they wish a source of grape juice in their own section. In many ways the juice from this grape would seem to me better than the Concord for flavoring jellies, as it has a more sprightly flavor.

## Pedigree Strawberry Plants

J. A. I., Lovington, Minnesota—There seems to be a multitude of evidence which shows that so-called pedigree strawberry plants have been greatly overestimated, and that the increased productivity which has sometimes been indicated from them was due to the fact that they were better cared for than common sorts. The Ohio Experiment Station under Prof. W. J. Greene made a very careful investigation of this subject, the result of which was reported in these columns something over a year ago, and while I haven't his exact words before me, yet I know that his reports show no gain whatever from planting the expensive pedigree strawberry in preference to common strawberry sets grown in good soil and under good conditions.

I believe there is a chance to do something in the way of increasing productivity of strawberry plants by careful selection of plants, but I think our friends who have advocated the pedigree strawberry have generally expected too marked and quick improvement from any effort in this direction. If you want exact data in regard to this matter, I would suggest that you write to the Ohio Experiment Station.

## Trees for Fence Posts

J. M. M., Hamilton, Iowa—I think the fastest-growing tree that in your section can be used for fence posts to advantage is the common white willow, which attains fence-post size quicker than any other tree I know of that will last as long in the ground. The wood of this species is not especially durable, but if posts six inches in diameter are peeled and cured, they will generally last six or seven years in contact with the soil, and if painted with creosote will last a considerable time longer.

I am inclined to think, however, that in favorable locations in your state, Catalpa speciosa will be a profitable tree for you to plant for fence posts. You should impress upon whoever you buy from that you do not want the common catalpa of the Middle States, known botanically as Catalpa bignonioides. If you do not know this tree, I would suggest that you get only one or two thousand seedlings, and plant them out as an experiment to begin with.

## Kind of Soil for Fruit Trees

C. A., Newell, Pennsylvania—The apple generally does best on a rather porous clay. Sour cherries generally prefer a little more open soil than apples, and often do well in soils that are quite gravelly. Pear, peach, plum and sweet cherry usually do best on a somewhat heavy clay, but all of these fruits will grow well on a good porous clay.

I do not know why it is that your plum trees do not bear, but am very sure that the cause is not to be found in the slaty ground in which you set them. If the trees are healthy it is possible that they are growing too freely, and that when they are a little older they will set fruit. It is also possible that the trees are of some variety that does not bear well, or perhaps you have them in a location that is reached by late spring frosts, and the flowers are frozen in spring, or it is possible that the flowers are not near enough to any other plums so that they are properly pollenized. It may be any or all of these reasons that prevent your plums fruiting. If you will let me know the name of the variety of plum which you have, I may be able to locate the cause.

The best time to set out trees in western Pennsylvania or anywhere else is in the spring of the year, as soon as the frost is well out of the ground and the soil is dry enough so that it will work well without being muddy.

## Sulphur as a Remedy for Diseases

We have recently received from a subscriber an account of how he destroyed San Jose scale and the elm-leaf beetle by boring holes in the trees and filling them with sulphur. A number of years ago the city forester of Boston, Massachusetts, tried the same remedy, but without any apparent results. Wherever this has been tried, it is found that the sulphur is not dissolved, but remains in just as good shape in the trunk of the tree, with apparently as little injury or effect on the tree, as it would have if it was corked up tight in a glass bottle.

Sulphur is not easily soluble, and is not taken up by plants to any appreciable extent in this way. I think the chances are that if any one thinks he has received good results from treatment of insects in this way, he has not connected closely the relation between cause and effect, that the cause of the insects disappearing was something different from that to which it was attributed.

## Orchard Not Bearing

E. P. N., Northfield, Minnesota—If the orchard to which you refer does not produce any fruit, it seems to me that there must be something wrong with the varieties, since trees that are growing slowly are more apt to produce fruit than those that are highly fertilized, but they do not produce good fruit. However, if these trees are not making good growth, I think your plan of cutting up the sod, and working in stable manure or some grain crop, or possibly some commercial fertilizer, is very desirable.

If I were to use commercial fertilizers, I should prefer dry ground tankage and potash, but I am inclined to think that merely breaking up the sod, and clean cultivation, with occasional seeding down to some cover crop, which is plowed in, would give you good results. I would much rather use stable manure than commercial fertilizers in a case of this kind.

## Mildew on Roses

C. R., Snydersburg, Maryland—Mildew on roses is caused by a fungous growth. Some varieties of roses have foliage that is very susceptible to disease, while others are quite resistant. Roses are most liable to this trouble when they are grown under unfavorable conditions, as, for instance, when we have long-continued cloudy spells of weather, or in late autumn when the nights begin to be cold. This disease causes the foliage or new growth to wrinkle up and finally to dry out. The best way of preventing this trouble is first of all by bringing about healthful conditions, next by the use of flowers of sulphur sprinkled on the foliage, or by spraying the foliage with ammoniacal carbonate-of-copper solution.

In greenhouses it is customary also to sprinkle sulphur on the steam or hot water pipes, so that it may vaporize a little, and in this way help to destroy the disease.

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### Preparing for the Corn Crop

I HAVE made it a practise for a number of years to use the stable manure on the corn crop. One reason for this is that my land had been badly farmed before it came into my possession, and it was badly run down, so that there was but little land that would produce a paying corn crop. The corn needs a fertilizer that will furnish a regular and constant supply of plant food throughout the growing season. Stable manure comes nearer doing this than the readily available commercial fertilizers.

I draw the stable manure to the field and spread it on a sod land intended for corn during the winter season. Then if the weather will permit, it is turned under during the winter, but if not, it is turned early in the spring. Some farmers are afraid of losing the fertility of the manure by spreading it during the winter, but I am persuaded that there is not nearly so much loss from treating it in this way as there is in storing it away until spring or throwing it out of the stalls into a conical heap by the side of the stable.

I have two fields intended for corn this year. One of the fields has been in meadow for three years. Previous to this it had been in corn with an application of stable manure followed by wheat with one hundred and fifty to two hundred pounds of a good grade of superphosphate applied. As soon as the wheat was harvested the stubble was turned and sowed to buckwheat, timothy and some clover seed mixed in it. The land was in meadow for two years, then to corn again.

This rotation had been followed for a number of years. I could tell by the crops that the soil was improving, since the yield of corn an acre has about doubled. I will not use stable manure on this field, as the soil appears to be pretty well supplied with humus and there is a heavy sod to be turned under. Perhaps I will use two hundred pounds of a good grade of superphosphate to the acre on this field, as I find that superphosphate pays on corn on a humus soil. The other field has been in meadow only one year, but the extreme drought last fall seems to have killed out much of the grass.

I will spread the stable manure on this field and turn it down early in the spring, and as the soil is not very fertile, I will use about two hundred pounds of a good grade of superphosphate to the acre, also. I will drill the fertilizer in the soil just before planting with my grain drill. Perhaps some would use superphosphate and potash, but the stable manure and the sod will furnish nitrogen and considerable potash; then the sulphate of lime in the fertilizer will help to render available the potash already in the soil. My past experience with superphosphate and potash combined seems to indicate that the potash added does not increase the crop over that of the superphosphate alone. The potash adds nothing but cost to the fertilizer for me. This may not be the case with others. If there is not potash sufficient in the soil for the crop's needs, of course it must be added; but if there is inert potash in the soil, the sulphate of lime, or land plaster, in the superphosphate seems to render it available for the use of the growing crop.

For a long time I have practised a rotation of corn, wheat or oats, buckwheat, sowing grass and clover with the buckwheat, and then mowing for two or three years, then applying the stable manure and putting in corn again. Superphosphate is used with the wheat, oats and buckwheat, and sometimes with the corn, and my land seems to be gradually improving.

I never use heavy applications of fertilizer. Never more than two hundred pounds to the acre, and usually not more than one hundred to one hundred and twenty-five pounds to the acre with oats and buckwheat.

A. J. LEGG.

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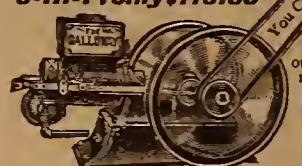
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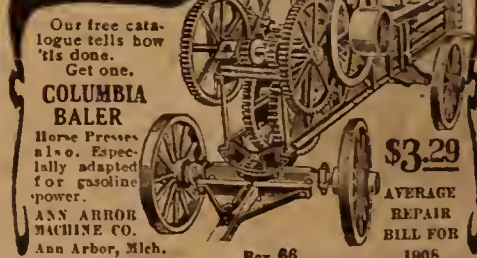
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## What's the Matter With the Farmer?

[CONTINUED FROM PAGE 2]

hope and ambition of the parents on the farm is to give the children enough education so that they won't have to stay on the farm.

The farmer appreciates good schools and wants good schools. He has the best schools that he can afford. The poorest schools are found among the poorest farmers. As farmers become more prosperous, schools improve. The children attend longer and more boys and girls get high-school and college educations. Improvement of country schools is an easy matter. *If you will increase the earnings of the farmers, they will improve the schools.*

### Woman's Work

The problems of making woman's work and life on the farm easier, healthier and happier is not a difficult one.

Given a well-built, well-furnished, convenient home; with open sanitary plumbing, plenty of running hot and cold water and furnace heat, a home equipped with modern labor-saving devices, such as washing machine, clothes mangle, sewing machine, carpet sweeper and dish washer, and you will relieve the farmer's wife of much of her hard work and remove many of the causes of her ill health.

If in addition to this you connect your home with the neighbors and the village by telephone, and provide plenty of books, papers, magazines and music, there is no reason why the woman's life should be lonely, dreary or monotonous.

Add to this a gentle horse always at your wife's disposal, and see to it that she has time to drive it, and I will guarantee that she will manage to enjoy life.

Of course, a croquet ground, flower gardens and tennis court will also help to relieve the monotony of country life.

This picture is not an impossibility. I know farmhouses that have all these things, and more.

### The Reason for Poor Homes

Why don't you have these things? Is it that you don't want them? Not at all. Every farmer wants a comfortable, convenient home. There is only one good reason why all farms do not have these necessary conveniences and comforts. *They can't afford them.*

There is not one farmer in a hundred but would have every one of these things if he could afford it, but he can't.

Improvements and labor-saving devices cost money, and there is mighty little money left on the farm after you pay the interest, the taxes, and the trust prices for everything you buy. Year after year improvements are put off and the purchase of necessary machines delayed because after the crops are sold and obligations met there is nothing left.

You know your women folks work too hard and you want to make their lot easier, but how can you do it when you have no money?

### Some Examples

Why, I know a woman who has done the family sewing by hand for eight years, hoping each year that she could afford to buy a sewing machine. Yet you can buy a sewing machine for nine dollars. I know another farm where they draw water from a sixteen-foot well by hand because they can't afford a pump, and you can buy a good pump for a few dollars.

I know— But what is the use? You know all about it.

The reason why woman's work on the farm is hard and dreary is because you can't afford to make it otherwise. The poorer the farmer, the harder the lot of his wife. When the farmer becomes more prosperous, there is an immediate improvement in the surroundings of the wife; he provides necessities, conveniences and comforts.

### The Remedy for Poor Homes

If you will increase the income of the farmers, they will remove many of the disadvantages of their wives. Give the farmers a little more of the wealth that they produce, and they will make the lives of their wives easy, comfortable and happy.

I might in this way take up every one of the commission's list of disadvantages and conclusively prove that all spring from a common source—the poverty of the farmer.

All their so-called 'disadvantages' are symptoms of a dread disease, and that disease is poverty. In order to remove the symptoms you must cure the disease.

Take up every deficiency outlined in the commission's report, and the cause of each one is found in the poverty of the farmer. The trouble is that the average farmer, with all his hardwork, self-de-

nial and economy, is able to make but a fair living. The income from his farm provides no surplus for improvement. The farmer is down, and he won't be able to get up until those who are holding him down get off his back. Give him a fair profit on his labor and capital and he will have something to work with. Give him a fair share of the wealth that he produces in such abundance and he will not complain of his condition or clamor for assistance. All he wants is a fair show. At present he is not getting it.

### What the Farmer Gets

The farmer's products that cost the consumer one dollar return to the farmer only thirty-five cents. Sixty-five per cent of the retail value of farm products is used in transportation and distribution, leaving only about one third for the producer. This is not fair, not just.

The consumer pays too much and the farmer receives too little. Vast sums go to enrich a horde of plundering middlemen, and to pay dividends on the watered stock and bonds of the transportation companies. The individual farmer, ignorant of business methods, deficient in capital and education, isolated, unsuspicious and unorganized, is an easy prey to the organized cohorts of corporate greed.

### What the Grange Says

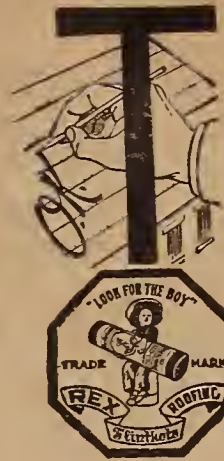
A recent report of the Executive Committee of the National Grange states the problem clearly and comprehensively:

"The statement is frequently made in our farm papers that the most important economic subject that concerns the farmers of America is scientific agriculture; or, in other words, the science of making two blades of grass grow where one grew before. We do not agree with their opinions. Notwithstanding the increasing interest in improving productive methods, the progressive farmer no longer considers the question of how to produce more as being nearly as important as the other great question of how to keep for himself a larger share of the products that he has already produced. The great problem of this day and generation is distribution. The producer and consumer must be brought closer together, and the special privileged class which robs both must be eliminated. Not until the square deal is fully established and monopoly completely annihilated can the questions of production again attain to their natural right position of first place."

### What's the Matter With the Farmer?

*He is too poor. He is too poor because he is robbed continually, systematically and unmercifully. No matter how much he improves his methods of production, he will continue to be poor until he stops this robbery; and that is what Farm and Fireside is going to help him accomplish.*

## The Roof that Dealers Endorse



How many dealers in this country could or would keep on handling a roofing year after year unless their experience had proved to them that this roofing would in every instance give absolute satisfaction to their customers—to you?

There are thousands of American dealers who have sold Rex Flintkote Roofing for years—and they are selling more of it every season.

Rex Flintkote is not a price-competitor with other roofings—it is a service-competitor. It will protect your property longer than other roofs without any care whatever and if looked after will be practically permanent.

These experienced dealers know their business.  
Hear what they have to say:

## REX FLINTKOTE ROOFING



George Fox

**CLARK'S LUMBER YARD**  
Pleasant Hill, Mo., Jan. 18, '09  
Gentlemen: Rex Flintkote Roofing is the most satisfactory roofing we have ever handled. At first we had to compete with the inferior roofings; but now we sell 95 per cent. of the roofing used here. We have never had a complaint.  
Yours truly,  
GEORGE FOX, Mgr.



J. C. McCall

**CENTRAL LUMBER CO.**  
Waupaca, Wis., Jan. 7, 1909.  
Gentlemen: We think nothing could say more for Rex Flintkote than the fact that we never had a complaint of it. Our sales increase every year and we can find no roofing on the market that gives as good satisfaction.  
Yours truly,  
CENTRAL LUMBER CO.  
John C. McCall, Mgr.



B. A. Headley

**SUNNY SIDE LUMBER CO.**  
Athens, O., Dec. 24, '08  
Dear Sirs: We have tested Rex Flintkote by fire, soaking, scouring, twisting, etc., put it on in all weathers and every roof is in the very best condition. We have never had a complaint, and sales increase all the time.  
Very truly,  
SUNNY SIDE LUMBER CO.  
B. A. Headley



E. T. Parker

**PARKER & JOHNSTON**  
Logansport, Ind., Dec. 29, '08  
Gentlemen: We tested Rex Flintkote before we offered it for sale. We now believe it surpasses all others for strength, durability, fire-resistance and economy. Sales have doubled each year, our customers always return and we have never had a complaint.  
Very truly yours,  
PARKER & JOHNSTON



R. H. Morehouse

**R. H. MOREHOUSE & CO.**  
Omaha, Neb., Dec. 30, '08  
Dear Sirs: We believe Rex Flintkote is the best prepared roofing on the market and find that the customer who once uses it on his buildings won't hear of any other brand.  
Yours truly,  
R. H. MOREHOUSE & CO.



I. A. Shedd

**EL PASO SASH & DOOR CO.**  
El Paso, Texas, Dec. 16, '08  
Gentlemen: We prefer Rex Flintkote over all other roofings because your name is behind it and we can guarantee it. We might make more profit, at first, by selling cheaper brands, but Rex Flintkote lasts and thus keeps our customers. Yours truly,  
EL PASO SASH & DOOR CO.  
I. A. Shedd

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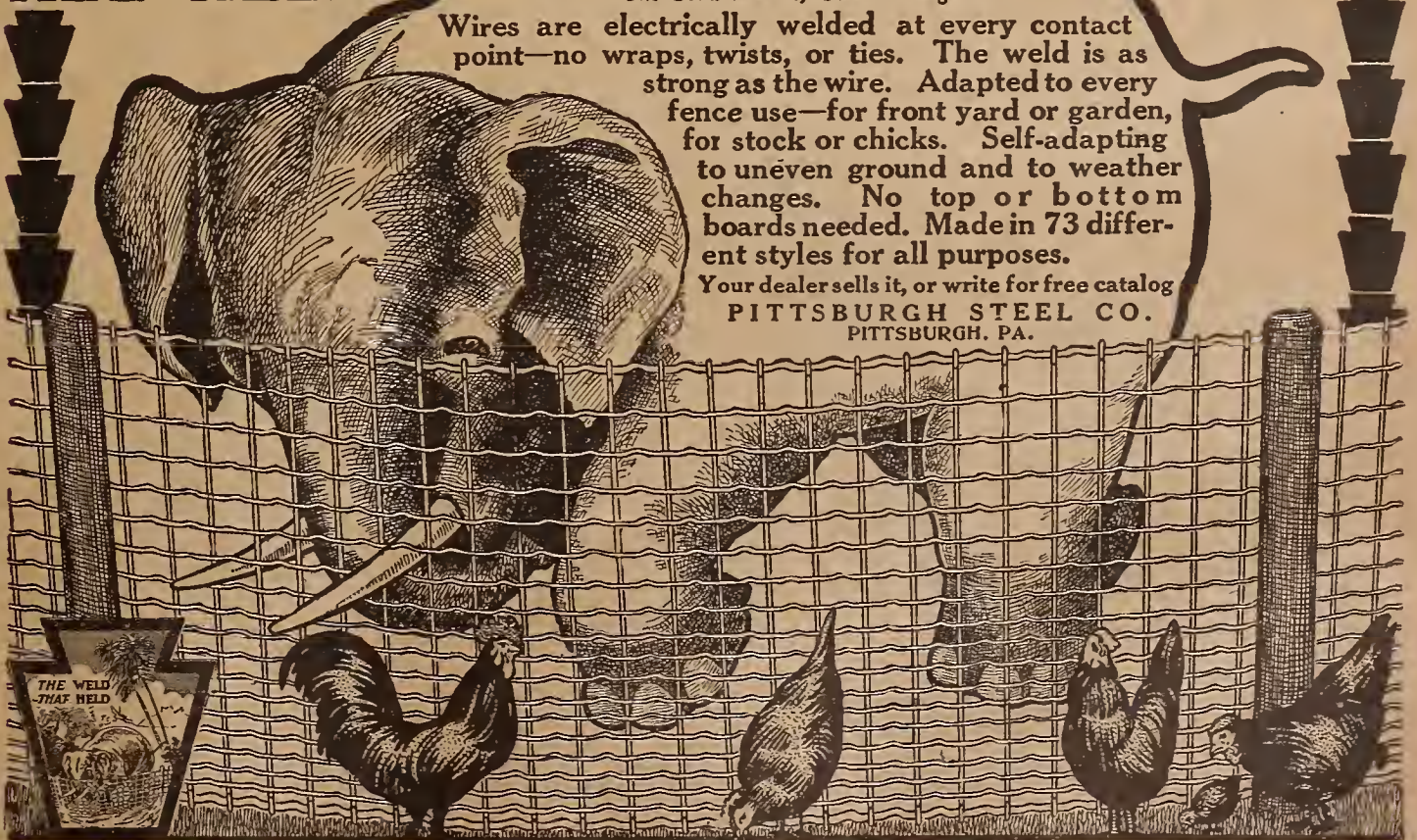
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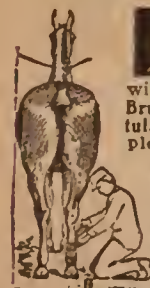


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# Live Stock and Dairy

## Feeding Hogs for Profit

TO OBTAIN a profit and be successful in raising hogs one must be capable and have a knowledge of the business. He must be an intelligent person and experienced in feeding if a profit is to be realized therefrom. By this I do not mean that he should necessarily possess a college education, but that he must have a knowledge of feeds and methods of feeding to enable him to get the most out of the feeding business.

The main expense in raising hogs is their feed, and it is the duty of the feeder to get as much out of it as he possibly can. I note that some farmers simply throw the feed to their hogs and let them take care of it, which is a great mistake. When hogs are fed in this way they do not receive the full benefit of the feed, for a portion of it is wasted. It should be remembered that one day's poor feeding will more than counterbalance two days of good feeding.

Regularity in feeding hogs is a matter of very great importance. The digestive systems of swine, and other stock as well, adapt themselves to receive food at a certain time, and if the food is not given at the expected time the animal is worried thereby. This results in loss of one kind or another. For this reason it is to the advantage of the feeder, as well as of the hog, to make it a rule to feed him at exactly the same time each day.

### A Variety of Foods Gives Best Results

Special care must be exercised in regard to the feed given. Any old thing that no other animal will look at is not good enough for hog feed. Meat of good quality cannot reasonably be expected unless clean food is used. Some farmers, no doubt, congratulate themselves that they have all the corn their hogs will consume and that there is no better feed. They will start the hogs exclusively on corn at the commencement of the fattening period, exercising but little, if any, care not to give them too much of it, and finally the result is that the appetite and digestion of the hogs are injured and they are given a backset that they will not readily overcome. It is very essential that the corn be given in rather small quantities at first, gradually increasing the amount as the stomach of the hog becomes stronger, until the animal is on full feed. I never feed my hogs very extensively on corn. I have found from experiments, observation and experience that far better results are produced by feeding corn in relatively small quantities in conjunction with mill foods, alfalfa and clover hay, turnips, artichokes, etc.

As the feed is about the only cost to be considered in raising hogs, we must use every possible means to get all there is in it. Therefore, anything that cheapens the feed increases the profit, and especially if it is not done at the expense of the health of the hogs.

### Comfortable Houses an Economy in Hog Raising

Hogs that are well fed and allowed cold and damp sleeping quarters during the winter will not make the gain that hogs do that are not so liberally fed and allowed warm, dry places in which to sleep. For this reason it is to the advantage of every hog raiser to provide comfortable hog houses before the approach of cold weather. These should be isolated and so arranged that the hogs can have free access to pasture at all times. There should be sufficient room in each department so that the hogs will not be compelled to pile upon each other.

Excessive feeding in the case of all farm animals is a bad practise, but with the hog it sometimes spells ruin. It is not necessary to look far to find that hogs often are the victims of overfeeding. The fixed idea of every swine breeder is to produce weight. This of course means flesh, muscle, large organs—anything to beget bigness. This matter is overdone to a considerable extent. Too much effort is being put forth to produce fat in an injudicious manner. It often spoils the hog and results in failure. There is too much rush. Fattening a hog cannot be accomplished in a day. It is not a matter of speed.

In making up a ration for hogs, cost must be taken into consideration, and the feed given must be such as to produce the greatest number of pounds gain for the least expenditure. Better results will be obtained if the grain is ground before being fed. The dairy wastes are all good hog feeds, skim milk being the best. For muscle making, middlings and linseed meal are good. Corn, including fodder and ensilage, has always stood

high as a fattener, and when properly balanced with skim milk, wheat bran, middlings, shorts and clover hay it makes a perfect ration. Skim milk is always an acceptable addition to the ration at any period in the hog's life. It gives best results when fed sweet. It is rich in protein elements and has much value for muscle making. Variety is necessary. Two feeding materials in combination will always give better results than when fed separately.

### Some Feeding Hints

In feeding new corn, care must be taken in the matter. A small quantity should be given at first and the amount gradually increased until the hogs have been gotten onto a full diet. A sudden heavy feed of new corn is very likely to throw the hogs out of condition and might start scours or some trouble with the bowels that would have a disastrous outcome.

When hogs are being fed clover or alfalfa hay it should be run through a cutter, mixed with ground grain and fed in the form of a slop. Hogs will eat a limited amount of nicely cured clover hay that has been cut before the stem becomes too woody, even though it has not been run through a cutter. The hay supplies muscle and bone making material.

Silage has a value in hog feeding, not so much for the food nutrients it contains as for its beneficial effect on the digestive system. It has succulence which keeps the digestive system in proper condition and prevents constipation. It is not relished very much on account of its high percentage of fiber. When fed to hogs, they will first eat the shattered grain, then chew the remaining portion, swallow the juice and drop the cud formed. It should be given in rather small quantities in connection with other kinds of feed.

### How Much Should the Pig Gain?

The fattening pig should gain from one to one and one half pounds a day, and should weigh between two hundred and fifty and three hundred pounds at nine or ten months of age. Gains made after this weight are nearly twice as expensive as those made when weighing from fifty to one hundred pounds, and a well-bred pig finished at a weight of about two hundred and fifty pounds will very nearly fill the market requirements and bring a satisfactory price.

It is of the utmost importance that the pens and surroundings be kept clean and the feed troughs and barrels scrupulously sweet. The hog is a clean animal, and when forced to be otherwise he will not return as great a profit from the food he eats.

Feeding floors are good things. The man who feeds his hogs on the ground usually does so from lack of better facilities. It should be remembered that it is not any more natural for a hog to pick his feed up out of the dirt and mud than for any other animal to do so, although circumstances have in many cases forced him to adapt himself to such conditions. Covered feeding floors are not so desirable in most respects as the open kind which are sheltered on the north and west. The open floors are washed off and kept clean and wholesome more easily. A feeding floor sixteen feet wide and of length sufficient to accommodate the hogs that are fed, and high enough to clean off without the refuse piling up at the side, is not only a great convenience, but a profitable addition to the feeding layout.

### The Charcoal Mixture Gives Thrifty Condition

It is necessary that charcoal, ashes and salt be kept in reach of the hogs at all times. I use all the corn cobs on my place for making charcoal to feed my hogs. I dug a pit five feet deep, which is much smaller at the bottom than at the top, in which to burn the cobs. I start a fire at the bottom, and gradually fill with cobs, then cover it with a sheet-iron lid. Earth may be used in covering the pit if a large lid is not available. In about twelve hours the combustion has produced an exceedingly good grade of corn-cob charcoal.

In feeding the charcoal, I make up the following mixture: Five bushels of charcoal; one bushel of wood ashes; eight pounds of salt; two quarts of air-slaked lime; two pounds of sulphur, and one pound of copperas. I break up the charcoal, mix all thoroughly together, put the mixture into self-feeding boxes, and place where the hogs can have free access to it. This combination furnishes a good percentage of ash for bone building, destroys worms and keeps the hogs in a thrifty condition. WM. H. UNDERWOOD.

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**SAFETY RAZOR GIVEN** Until they are gone, we will sell 15,000 spring and summer weight, NAVY BLUE WOOL CASSIMERE MEN'S SUITS at \$4.95, and as a premium and adv., we will give with each suit at \$4.95 a pair of fine, fancy striped worsted trousers, and if you order within 30 days we will throw in as a special premium with the suit and extra trousers at \$4.95 a highly selected, full size safety razor, guaranteed to shave as perfectly as any \$5.00 safety razor regardless of name or make.

**The Suit** is a fine grade navy blue cassimere, a splendid fast color fabric of perfect weave and beautiful single-breasted sack style to fit perfectly, is serge lined, elegantly finished, guaranteed better than exclusive clothiers' \$8 to \$10 suits or no sale. Sizes 33 to 48 inches around breast.

**The Trousers** which we give with the suit at \$4.95 are made of beautiful dark, fancy striped worsted, are very stylish, finely tailored and perfect fitting. The most astonishing and wonderful clothing offer ever made. We openly challenge any firm to equal it.

Send \$1.00 deposit, mention No. X39, give chest meas-

ure over vest, waist measure over trousers, length of inseam and height and weight, and we will send the fine navy blue cassimere suit and extra pair of elegant, fancy striped worsted trousers and fine safety razor by express subject to examination at the express office, you to pay the balance, \$3.95 and express charges, after you examine the clothes and find them perfectly satisfactory, a perfect fit, the greatest clothing bargain you ever saw, and equal to any suit and extra trousers ever saw at \$10 to \$12, and as stylish an outfit as there is in your neighborhood, regardless of price; otherwise we will promptly refund your \$1.

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for 4 Buggy Wheels, Steel Tires. With Rubber Tire, \$12.75. 1 mfg. wheels (4) to suit. Buggy Tops \$5.00. Shaft \$3.00. Top Buggies \$12.00. Harness \$5.00. Learn how to buy direct. Catalogue Free. Repair Wheels, \$5.00. Wagon Umbrella \$2.00. P. F. BOON, Cincinnati, O.



# Live Stock and Dairy

## The Cheviot Flock

THE Cheviot comes originally from the rugged hills of Scotland, and as befits its ancestry, is hardy and strong. It is a mutton breed, not taking on fat in excess when being fitted for market, as do some heavier breeds. The meat is of fine flavor and quality and lean enough to make delicious eating. They are of medium weight and grow quickly. They are not subject to disease and do not need to be pampered.

These sheep thrive best on the rocky hillsides and mountain pastures nearest like their native land. Their wool is of very fine quality and of good quantity, and is much in demand for the making of cloth for outer garments and men's clothing.

This breed of sheep was first introduced into this country by a New York man who had become interested in them. They were so well liked that much pains were taken to keep the breed pure and improve the flock.

Wherever these improved flocks are shown much interest is manifested and there is no doubt but that they will be more and more largely bred on land adapted to their habits of living.

- H. PERCIVAL.

## Cow Notes

THE good cow is a home builder, a profit maker, a foundation for better living, a sure-enough uplift for the farmer and his family. She is of the feminine gender. She is a mother—a feeder of babes and a supporter of invalids. Being all these things, and more, she has obligations due her. She is entitled to be owned by a man who is liberal as she, as careful as she is good, as intelligent as she has needs and functions.

We cannot expect to get so much of good and value from the good cow and withhold from her the help she must have to do her best. We must not expect her to perform as a mother of young and a feeder of our young and treat her as a steer. Her requirements are not that she shall be fed sumptuously every day, but she must every day be fed abundantly. She must not be asked to make bricks without straw, nor, on the other hand, be expected to make butter bricks with straw only.

Straw is a most excellent farm product, but it is chiefly excellent to lie on. Cows will eat some of it—let them do so if they want to, but don't force them into doing it because of hunger.

The good, generous work of the cow is an expression of her good feeling toward

into cheap beef. The man probably keeps her head in a stanchion and his own neck under a yoke that is heavy. The cow even failing may be doing the best she can, and the man sinfully failing doing the least he can.

We have much to say in denunciation of the poor, the unworthy, the underserving cow, but really the man is portrayed in his herd; and the herd is usually on as high a level as the thought and deed of the owner. The herd, like a mirror, merely makes images, and so very often casts reflections. When well and properly fed the cow ruminates most; when she is not well fed we need to encourage the dairyman to ruminate more.

No careful man need keep a poor cow, but who shall count for us the number of poor men who are hindering good cows from doing better?

W. F. McSPARRAN.

## The Rearing of Draft Colts

THE average farmer does not realize how easily and profitably this side line may be carried on. By keeping a pair of fairly heavy mares for ordinary farm work—they cost no more, nor do they require more care, than geldings—one can so carry on the side line that after one is well started it will return him from two hundred to three hundred dollars a year for each pair of mares kept upon the farm. Also, large mares which are too old or are so injured as to make further work for them impossible, can by this means be made to return a profit of twenty to thirty dollars a year clear of all expense for feed and the like.

If your farm is reasonably well equipped as to buildings, you do not need to invest a cent in the industry, as it requires no special buildings or any feeds other than those required on the average farm. Of course, the better the quality of your brood mares, the better are your profits.

A colt from a nineteen-hundred-pound pedigreed stallion and a high-grade fourteen hundred or fifteen hundred pound mare should bring eighty-five to one hundred dollars at weaning time, which money, less the service fee, is clear profit. But that colt can be raised until it is two years old at a total cost of approximately seventy dollars. From that time on it will do enough work to pay for its feed. As a broken three-year-old it will sell for from one hundred and ninety to two hundred and sixty dollars, and even higher.

If you are so situated as to be actually unable to work him as a two-year-old, you can keep him another year for about



Cheviot Sheep

The First Prize Flock and Champion Ram at the New York State Fair in 1908

the world, and for it she is deserving of the kindness, gentleness and justice that are expressions of gentle breeding in man. I always have a feeling of pity for the wife and children of a man who will abuse a cow, and if she happens to be my cow he may observe that while I am slow to anger, my arrival there is to some purpose.

The cow can take nothing more from her ration than Nature put there or left there. What the ration lacks records what the man lacks, and as the ration fails, the cow also fails the man in profit. If a man have a poor cow—that is, one functionally incapable of rendering a profit—is it the cow's fault if the man keeps her? She is no free agent, that she may run away and fatten herself

thirty dollars and sell the animal for about the same price as were he broken. The figures on the crippled and old mares were based on selling him as a suckling colt. Yet this animal may be kept and sold as a three-year-old with no small profit to yourself. CLYDE A. WAUGH.

## Sheep Notes

It is a great waste of money to allow sheep to become too old for mutton or wool. They should be gotten rid of in time.

A barbed-wire fence is unsuitable for a sheep lot. The barbs catch on the wool and make the sheep look ragged. There is danger also that the animals may be injured by the barbs. Plank or woven wire is better. WM. H. UNDERWOOD.

# Other Cream Separators Merely Discarded or Abandoned De Laval Inventions

It is interesting and instructive to know that nearly, if not quite, every cream separator that has ever been made, and certainly all that are being made at this time, are merely copies or imitations of some type of construction originally invented or developed by the De Laval Company, and either not used by it because of something more practical or else discarded and abandoned in the course of De Laval progress and utilization of later improvements.

As earlier patents have expired some of their features have one after another been taken up by different imitators, so that at all times, as is the case today, every separator made in the United States or elsewhere in the world, utilizes some type of construction originally owned and developed by the De Laval Company, though some of them have never been commercially used by the De Laval Company because of their inferiority to other types of construction used by it.

All cream separator inventions by others have been of immaterial details or variations, upon which patents have been taken, if at all, more for the sake of the name than by reason of any real value or usefulness attaching to them.

But the De Laval Company has always been forging ahead, with its many years of experience and the best of experts and mechanics the whole world affords in its employ, so that before any expiring patent might permit the use of any feature of construction by imitators the De Laval Company had already gone so much beyond that type of construction that it was then old and out-of-date in the modern De Laval machines.

The first practical continuous flow centrifugal Cream Separator was the invention of Dr. Gustaf de Laval in 1878, the American patent application being filed July 31, 1879, and issuing as Letters Patent No. 247,804 October 4, 1881.

This was the original Cream Separator—of the "Hollow" or empty bowl type—and it has been followed from year to year by the various steps of cream separator improvement and development, all De Laval made or owned inventions, the American patent applications being filed and letters patent issued as follows:

The original hand Cream Separator of the "Bevel Gear" type; application filed October 2, 1886, issuing as Letters Patent No. 356,990 February 1, 1887.

The original hand Cream Separator of the "Spur Gear" type; application filed January 17, 1887, issuing as Letters Patent No. 368,328 August 16, 1887.

The original Steam Turbine-driven Cream Separator; application filed December 8, 1886, issuing as Letters Patent No. 379,960 March 20, 1888.

The original "Tubular" shaped "hollow" bowl Cream Separator; application filed April 19, 1886, issuing as Letters Patent No. 372,788 November 8, 1887.

The original "Disc" bowl Cream Separator; application filed May 12, 1890, issuing as Letters Patent No. 432,719 July 22, 1890.

The original vertical "Blade" Cream Separator bowl, covered likewise by the application filed May 12, 1890, issuing as Letters Patent No. 432,719 July 22, 1890.

The original "Bottom Feed" Cream Separator bowl; application filed July 24, 1889, issuing as Letters Patent No. 445,066 January 20, 1891.

The original series of "Star" or "Pineapple Cone" shaped cylinders Cream Separator bowl; application filed August 24, 1893, issuing as Letters Patent No. 521,722 June 19, 1894.

The original "Curved" or "Converging Disc" type of Cream Separator bowl; application filed January 18, 1905, issuing as Letters Patent No. 892,999 July 14, 1908.

The original "Split-Wing" Tubular Shaft Cream Separator bowl; application filed April 29, 1898, issuing as Letters Patent No. 640,358 January 2, 1900—which invention, with a number of later improvements, is the type of bowl construction used in the De Laval machines of to-day, still covered by protecting patents which prevent its appropriation by would-be competitors.

The patents thus enumerated are but a few of the more important of the more than 500 original Cream Separator patents owned, controlled and developed by the De Laval Company during its thirty years of creation and development of the Cream Separator industry throughout the world. They are recited because they show in the most illustrative and conclusive manner possible De Laval originality and leadership from 1878 to the present day.

In addition to these patent-protected features, the De Laval machines have within two years been mechanically re-designed and re-constructed in every part, from top to bottom, so that the new 1908-1909 line of De Laval machines are to-day, even more than at any past period, fully ten years in advance of any other cream separator made.

These are the Rock-of-Gibraltar-like facts against which the mere "word claims" of would-be competitors fade away like the mists of night before the rays of the morning sun.

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## Live Stock and Dairy

### Producing Protein Crops for Animal Food

**I**T is a well-established fact that in order for animals to continue in a thrifty condition, and, in addition, produce meat or milk or be of service for draft purposes, they must be supplied with the proper amount of protein. Most of our ordinary grains, it is to be regretted, are lacking in this element. There are, however, a limited number of crops comparatively rich in nitrogenous material. This gives us the choice of two alternatives in planning for our future supply—buying or growing it. Usually the commercial article is a by-product and very concentrated; therefore, it is not as desirable or healthful as the home-grown protein. Moreover, it is decidedly expensive to buy, and the feeder who has to depend on the market will, nine times out of ten, get along without it. For these reasons it behooves the average farmer to forego the purchase of any large quantity of protein feed and make a strenuous effort to grow it on his own farm. There are at least one or more such crops that are almost sure to be adaptable to his soil, and the experiment stations will aid him in arriving at the amount of digestible protein supplied by each.

#### Alfalfa Compared With Bran

With the price of bran at twenty-three to twenty-five dollars a ton, many farmers have been tempted to experiment with alfalfa with a view to utilizing it as a substitute. In this connection some of the results secured have been exceedingly favorable. I have in mind one dairy farmer who has been growing it successfully for the past twelve years. From three cuttings a season he produces an average of from five to six tons an acre, and after allowing for the rent of land, labor, etc., he places the cost, when stored in the barn, at two dollars a ton.

To determine the value of alfalfa as a source of protein, not one pound of bran or grain of any kind was fed. One cow, a Jersey, two weeks in, was fed fifteen pounds of ensilage, valued at two dollars a ton; sixty pounds of mangels, valued at six cents a bushel; twenty pounds of alfalfa hay, at a cost of two cents; also some cut straw, for which he did not charge. On this ration she gave two hundred and ninety and one half pounds of milk in seven days, or forty-one and one half pounds a day, testing four-per-cent butter fat. It will be noticed that the cost of feeding this cow for one day was nine and one half cents. At the current price for butter fat at the creamery, she

brought an income of three dollars and twenty-four and one third cents, and deducting sixty-six and one half cents, the cost of feed for seven days' output, the weekly net profit was two dollars and fifty-nine cents. The owner is satisfied that he can feed his cows cheaper in the stable than he can pasture them in the field during summer. He has kept a careful record of individual yields, as well as the amount of food consumed by each animal, and is in a position to back up pretty effectively any conclusions at which he has arrived. A comparison of the June and December yields of other members of his herd show but little falling off in the quantity of milk, while there had been a considerable increase in the percentage of butter fat. This sustained mid-winter yield on a ration of straw, roots, ensilage and alfalfa, without grain, is a striking proof of the value of alfalfa hay as a substitute for costly mill feeds.

#### Alfalfa Good for All Stock

Alfalfa, however, can be fed profitably to all kinds of farm stock. It is especially valuable for young and growing cattle, horses and sheep. Working horses with a very little grain added will keep in good condition on it. In this way beef, pork and mutton can be produced quickly and cheaply and will command top prices in the market. It is also one of the very best soiling crops and will be found desirable during mid-summer in supplementing scanty pastures.

The cultural methods are practically the same as in growing a crop of red clover, yet there are many failures. Most of these, however, may be traced to three causes—a poorly drained soil, lack of the necessary bacteria, and weeds. Avoid these cardinal mistakes and the chances are vastly improved for securing a stand of alfalfa.

Quite frequently, where the land is unsuitable for alfalfa, soy beans will make a very luxurious growth. In protein content they are rated a close second to the former, and while not generally grown, they have in recent years gained some prominence, and being reasonably reliable, are worthy of attention. Any land where a good crop of corn can be grown is suitable for soy beans, the planting and cultivation being carried on in a similar manner. This crop will prove valuable for feeding purposes when allowed to mature and the beans ground into meal; for curing as hay, or putting into the silo. In the first and second instances the beans should be planted in rows about thirty inches apart with a grain drill, using early maturing varieties. If grown for silage purposes, the medium or late varieties are preferable, using a corn planter. It is a good practise to cut up this crop along with the corn, and thoroughly mix them when putting into the silo.

#### Soy Beans an Economical Hog Food

For economical pork production soy-bean meal is from three to ten per cent more valuable than wheat middlings, granting that the cost of each is the same, and is an excellent material for balancing up a ration of corn. Either as grain or forage, nearly all farm animals will eat it readily and with very satisfactory results.

Two other crops that produce a large amount of protein at comparatively little cost are the hairy vetch and Canada peas. Made into hay, the former gives splendid results when fed as roughage in conjunction with the winter ration, and will be found equally suitable for soiling. Ton for ton, it yields about the same amount of forage as red clover, but is just twice as rich in the protein element. Being a viny plant, it is hard to cut when seeded by itself. If, however, it is sown with wheat or rye, the cereal will support it well up from the ground, thereby greatly facilitating cutting and curing. The peas are by far the richest in protein of all our ordinary grains. They can be grown successfully over a pretty wide area, and when thrashed and ground into meal are very popular as a feed for all kinds of farm animals. As a forage crop my experience with them has been very satisfactory. Usually from three to five acres are devoted to a mixture of peas and oats in the proportion of one bushel of peas to two bushels of oats, a third of the land being sown to this crop at intervals of two weeks, so that the whole crop may be in the best condition for soiling when required. If all cannot be used in the green state, we cut and cure for hay in the ordinary way. It is relished by cattle, horses and sheep, giving quite as good results as the best clover hay.

J. HUGH MCKENNEY.

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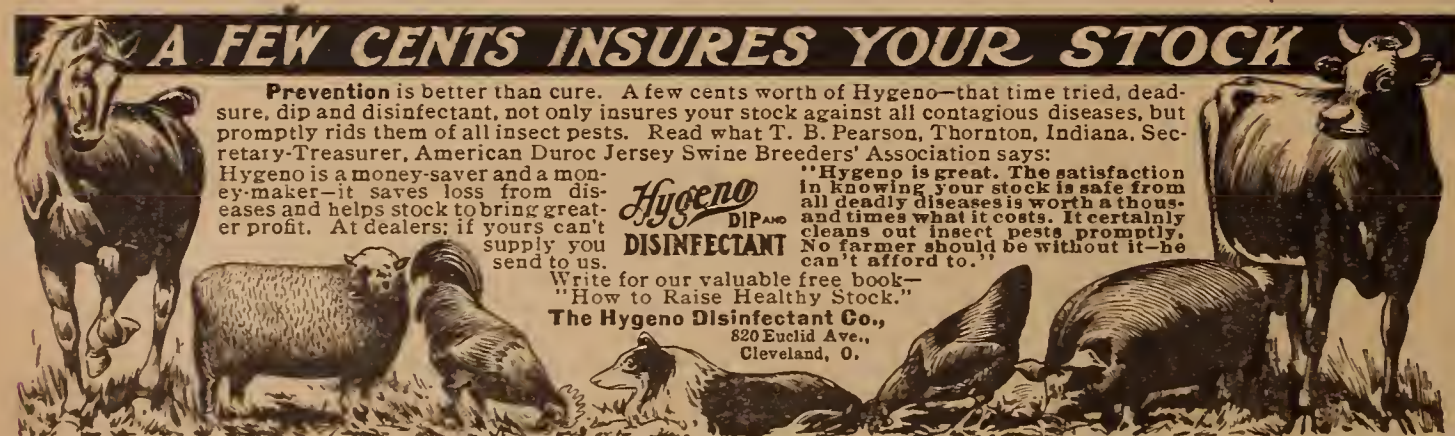
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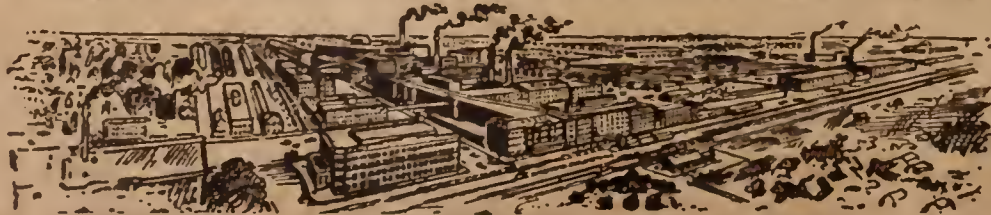
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# Poultry Raising

## Shall We Hatch Late or Early Chicks?

There is great difference in practise and opinion among those who raise fowls, as to the proper period for hatching the chicks. Of course, breed makes much difference, as the very large breeds take a long period to reach maturity; but leaving out of the question the Asiatics, of which comparatively few are raised in this country, we still find people who think April is already late, and others who make a practise of waiting until the latter part of May to get out the greater number of their chicks.

The large and rapidly increasing number of fanciers has been chiefly responsible, probably, for the increasing desire on the part of the many to get chicks as early as possible. The incubator has made it possible to raise early chicks in larger numbers than could have been done before the advent of the machines, and the universal desire for winter eggs has been another strong factor.

A few years ago one of our experiment stations placed both those who contend for very early chicks, and those who insist that June stock is most satisfactory, in the wrong. The assertion was officially made that only in the natural season, about the latter part of April and earlier May, on the average, was there probability of best results. I have watched these things very closely for several years. I myself once believed that only the early chicks were certain to do well and be profitable; but further experience has convinced me that the matter is almost wholly one of handling and is in the breeder's own hands.

In case the late chicks can be made to thrive as well as earlier ones, there is a great deal to be said in favor of hatching right on through the season, or at least until one has a satisfactory number out. Indeed, from one point of view it is decidedly better for the majority of farmers not to hatch until June, or even until July. The handler of fowls who cannot get winter eggs is not justified in hatching early chicks, for they will cost him twice as much as late-hatched ones before they begin to bring in anything. And admitting that late chicks can be made to thrive satisfactorily, there are only two reasons that I can see for feeding chickens from March until February, as so many do, before getting any returns, when those hatched in June and July will begin to lay at about the same period. The fact that a trifle is lost in size need not count, since outside eggs can be used for hatching, so that the size of the birds need not continue to grow less. There will always be plenty of neighbors who will not believe in late chicks, and eggs can be had from them if it is thought necessary.

There are, however, two points against late chicks. One is that they have to put on their mature coat during cold weather, and are therefore more subject to colds if not properly housed from cold winds; the other is that when laying has been very heavy and the season very hot, the parent stock will not give as good eggs in mid-summer as they will very early in the season. It is a question which each must decide, whether or not these objections are so great as to overbalance the real advantage of quicker growth, less cost to raise, etc. The matters of lice, too much heat, trampling, lack of water, etc., can all be overcome by careful handling, and there are no chicks that thrive like the mid-summer chicks if circumstances are made to favor them. The greatest handicap summer chicks have to meet is trampling by older ones. Another serious one is that water is not kept before them all the time. One little-suspected evil is too strong sunshine on chicks just from the nest. Since I learned to keep the summer chicks confined to their coops for the first three days, with careful shade after that, I do not have those inexplicable losses that used to be so common. Of course, lice can deprive us of all the summer chicks if we let them, but we don't need to let them. The need for water all the time and shade at will cannot be too forcibly impressed on the boys and girls who are interested in the chickens. I have seen a brood thrive perfectly for a month, and go all to pieces through overfeeding for one or two meals, combined with lack of water at the same time. And no after pains could overcome the blunder.

That "contingent fund," which every organization cherishes so carefully, is nowhere more needed than in the poultry yard. True, it consists in this case of extra feed and water, but it means money in the end. And it means comfort to

many small orphans, machine made, perhaps, but persistent in their demands and very much alive to the situation. But, alas! not long "alive" to anything if left to the mercy of circumstances or the neglect of their foster parents.

On our farm we have much pleasure each year in bringing up several families of what, for want of a better name, are known as "box babies." No other chicks thrive like these, none show so few losses, none are so tame. So that, except for the greater care which they require, no brooders are needed for chicks which come after the weather is warm enough to supply all the heat needed during the day. A one-hundred-cake-size soap box is the only brooder needed for fifteen chicks, with a screen for the top. A warm but loosely woven piece of flannel is the only cover needed, and at five or six weeks old the inmates of this primitive "brooder" will insist on no longer receiving the treatment of babies. They then go to the coops at night, like the rest.

The very large number of people who are "too busy" to care for chicks after they are hatched should never attempt hatching summer chicks. Neither are they for those who have their quarters already full of older stock. But those who have a place for them by themselves, and time to care for them decently, need not be afraid to hatch all they want. I find a little of head work helps very largely to overcome trampling by larger chicks. When we must raise both in the same enclosure we place runs made of fifteen-inch boards around the smaller ones until they can fly over them. Then, by simply locating the youngest chicks furthest from the gate where the feeder enters, they get along reasonably well. The young chicks are not with the main lot at all until nearly three weeks old. The great rush is near the gate at feeding time, and is over before the younger ones arrive on the scene. When they get nearly to the big bunch the feeder is already on the way across to the location of the younger ones, and they follow, so that they feed separately to a large extent. If good care is taken the summer chicks will lay at the same time as the early hatched chicks.

C. A. UMOSALLE

## A Few Good Hints

"What kind of oil shall I use in my incubator?"—A. S.

Any good grade of kerosene. It should not test less than 150.

"Which counts in a poultry display, the number entered or the points in perfection?"—J. J. N.

In scoring poultry, the points are always made the basis of calculations.

The time to fight insect pests is before they make their appearance. It is easier to keep them out by cleanliness than to get them out after they have gotten a good hold.

Look your incubator over for signs of lice before putting it into use. The lice may get in when you least expect it. If they do, you may be sure your chicks will be troubled with them, although they ought not to be.

Chicks hatched under a hen are quite apt to have lice. Do your best to have the sitting hen free from these pests. Sprinkle the nest boxes with insect powder when the eggs are first set and look out for the lice all the way through.

E. L. V.

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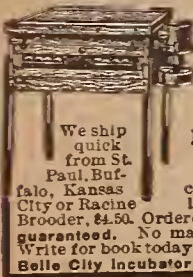


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# About Practical Poultry Raising

## Failures in Hatching Chicks in Incubators

CHICKS dying in the shell is a common trouble in hatching and one which causes failures each year. There had not been any attempt to discover why chicks die in the shell until the hatching of them with incubators became popular, although this trouble predominated when old biddy sat on the eggs and long before the incubator was even thought of. There were only a few eggs under each hen at the most, and nothing was thought of it; but when the incubator came into the field and made it possible to hatch them by the hundreds, the cause of chicks dying in the shell came up for discussion.

I do not pretend to know all, but what facts I give are from my own experience and observation. Whether there are a larger number of chicks dying in the shell where eggs are hatched in an incubator than with hens is doubtful. However, it is very plain to me that two eggs under each of ten or twelve hens showing chicks dead in the shell will not cause much or any attention whatever, while the large number in one incubator will cause very much alarm. It is simply that by having all the eggs together, as in the incubator, one realizes how many there are. With the hens it's only one or two here and there, so it is very easy to see how a low estimate can be made in the one case and a high one in the other.

Why chicks die in the shell is a difficult question to answer, for the cause is not always the same. Perhaps not in two cases in twenty will the conditions under which the eggs were incubated be the same or the conditions surrounding the eggs before they were placed in incubation be the same, hence the causes must necessarily differ greatly. It is therefore difficult to give any definite instructions that will apply in all cases.

A few chicks dying in the shell should cause no alarm. It cannot be prevented and it is an impossibility to hatch every egg. A few chicks failing to come out of the shell is no indication of faulty incubation, nor does it necessarily mean a weakness in the breeding stock. However, when a large number die in the shell, you should look about for the trouble, and this is not always easy to find. The incubator is not as often at fault as many are inclined to believe. If the machine is a good one of standard make the trouble is more likely with the operator or with the eggs. A poor operator will not get a good hatch with the best machine made. If the trouble is neither with the machine nor the operator, then the trouble lies further back. Carefully note the condition surrounding the eggs after they were laid and before

they were placed in the incubator. Eggs too long exposed to a chilling atmosphere, or kept in too warm a temperature, or kept too long after being laid and not turned daily, will show an unusually large number of chicks dead in the shell.

Eggs to hatch well in an incubator should be as fresh as possible, the nearer all are of the same age the better, and of the same size and color. Never set brown with white shelled ones. Eggs two or even three weeks old have been known to hatch remarkably well, but those not over a week or ten days old are much more to be relied upon. Eggs to be incubated should be kept in a temperature of fifty-degrees and should be turned daily, or at least every other day. If the eggs have been sent on a long journey, and perhaps roughly handled, a larger per cent of chicks dying in the shell than usual can be expected.

None of these things enumerated being the cause, go still further back and look into the condition of the breeding stock. It may appear healthy enough, but not produce strongly fertilized eggs. There may be a lack of vigor on the part of the male, or a spirit of uncongeniality between the male and some of the females. The food ration may be lacking in some much-needed element—green food or animal food—or the food may be simply dumped out to the flock, and the fowls therefore not taking sufficient exercise to keep themselves in a vigorous breeding condition. The breeders may be immature, or may be poorly fed, or overfat. Look over all these conditions carefully—in fact, do not overlook anything that has to do with the strength and vitality of the chicks, either directly or indirectly. Remember that the secret of securing high-per-cent hatches depends as much upon strongly fertilized eggs laid by healthy, vigorous birds as upon proper incubation.

The more frequent cases of chicks dying in the shell where the incubator or the operator is at fault are irregular temperature, neglect in turning the eggs, improper ventilation, or more frequently insufficient ventilation, caused by operating the machine in a poorly ventilated room. The directions accompanying an incubator are generally to be relied upon, and if these are followed carefully, no greater trouble should be experienced with the chicks dying in the shell where the eggs are incubated by artificial than by natural means, due allowance being made for the experience of the operator.

A. E. VANDERVORT.

## Poultry Troubles

AMONG the inquiries which have come to FARM AND FIRESIDE from readers who are interested in our feathered

friends is one which describes a fine hatch of almost five hundred White Leghorn chicks last spring, all doing well. When a little more than a month old they began to droop and die. They were fed carefully and kept on ground which had not been inhabited by poultry for years. After a short time their wings began to droop until they reached the ground, they lost their appetite, and in a few days, or sometimes in a few hours, they would drop over dead. A search for lice did not disclose any. Neighbors had chicks affected the same way, but could not tell what was the cause nor what to do.

In spite of the failure to discover insect enemies, it seems to me they were at the bottom of the trouble in this case. The symptoms indicate this. Perhaps no language can describe the torment these pests cause the little birds. Day and night they must be robbed of their very life blood, until it is no wonder they droop and die.

A sister of mine tells me that last year she and another sister had trouble just like this. They hunted for lice, and could find none; but being quite sure that they were present, they made a simple ointment of two parts lard and one part kerosene, and applied it under the wings and all around, following this with a few drops of sweet oil given internally. This stopped the fatality and would seem to prove that lice had been doing the mischief. Pure lard is a good remedy of itself, and some think it is better to use it alone than to mix it with an irritant like kerosene. Rub it under the wings and into the feathers about the throat, and also on top of the head. However, it will not be necessary to do this until the chicks are a week old.

E. L. VINCENT.

## Home-Made Brooders

I PREFER a simple, home-made brooder costing only a few cents to any other I ever saw.

I procure a good, strong dry-goods box as near the dimensions of a real brooder as possible, and nail a two-by-two-by-four-inch block under each corner for feet. I make a cover of wire screen, and hinge it to one side, and put a hasp on the other, so that I can fasten it down tight.

If my box is a large one, I put in a wire partition, so as to have two compartments. Usually boxes can be found large enough for only one. I want them from twelve to eighteen inches deep.

I cover the floor an inch deep with dry sand, and take a gallon stone jug, fill it with hot water, wrap it in old flannel and set it in the center of the box; then I put in my chickens. They will cuddle around this jug and keep warm. When the ones closest are warm enough they will give way to the outer ones, and so change about and keep the right warmth.

When they are active I leave the box without other covering than the screen. When they are sleepy I throw a rug or any warm covering over the screen, to darken it and keep the heat in, leaving a corner three inches each way uncovered, for ventilation. At night I fill the jug with new hot water and cover as before. The chicks will not roast nor freeze nor smother. They will be all right.

For outdoor brooders, cut an exit in the side of the box and make a bridge to go in and out on. Build an A roof or a slant roof and a wire run and you have your chickens safe until large enough to look out for themselves. The jug needs filling twice a day—at night and in the morning.

One-inch-mesh wire netting on a light frame that can be easily moved makes an ideal run. Move to fresh ground as often as the runs become soiled. I have raised fifty chicks in one brooder and run, but it is better to have only twenty-five together. They will then do enough better to pay for preparing the extra space.

H. PERCIVAL.

## In the Poultry Yard

It costs more to keep a poor hen than it does a good one. More worry, more vexation, more dissatisfaction.

About the first thing you had better do when there is anything the matter with your hens is to look for lice.

Apply kerosene to the roosts with a cloth or swab every two weeks during warm weather to kill the red-spider lice.

Respect the hen. She may cackle foolishly sometimes, but she adds much to the comfort and prosperity of the farm home.

Keep the poultry house clean and neat, and your efforts will be amply rewarded by the egg basket and kind words from your friends.—Farm Journal.

## Do You Get Eggs

If not, there's a pin loose in your system. Hens can't help laying if they're given half a chance, it's their nature. Depend on it, you are not living up to your partnership obligations if the egg basket isn't full.

Hen nature—the organs of digestion and assimilation—need help if production is to be kept at high-water mark. A hen can't be confined—denied what she would get by free foraging—and still retain health. Your part is to supply what she lacks by *aiding digestion*. Do that and your ration will yield the greatest possible amount of nutrition, every element needed will be supplied and your hens will lay.

This is "The Dr. Hess Idea." Long experience as a poultry man led him to believe that the unnatural condition of the domestic fowl could be changed so far as results are concerned—by a suitable tonic, and

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was formulated for the purpose. Thousands of poultry keepers are doubling their egg production by the use of this tonic. It is composed of most helpful ingredients—bitter tonic principles, iron for the blood and the necessary nitrates to keep the system free of harmful, poisonous matter. Dr. Hess (M. D., D. V. S.) guarantees this prescription. If you use it as directed and do not get more eggs, your money will be refunded. It fats a market bird in the shortest time; carries fowls safely through moulting, helps chicks to early maturity and cures gapes, cholera, roup, etc. All poultry men endorse Dr. Hess Poultry Pan-a-ce-a. A penny's worth a day is enough for 30 fowls.

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## Storing Up Soil Moisture

ONE of the problems underlying crop production is how to maintain the required amount of soil moisture. It has been estimated that six hundred tons of water are necessary to grow an acre of potatoes yielding two hundred bushels; or, to put it in another way, land to do its best should have its water content maintained within from forty to fifty per cent of saturation. For twenty years the records show an annual rainfall of from twenty-four to twenty-eight inches. Under ordinary conditions, sixteen inches are seldom available for the use of crops, the remainder having been carried away through various agencies. Being the medium by which plants take up their food, fertility to a large extent is measured by the amount of moisture present. Few lands, therefore, will produce maximum yields without some means being adopted for storing up a supply of moisture in the soil to aid in feeding prospective crops.

A prime factor toward this end is underdrainage. It is a matter of common experience that crops on well-drained soils withstand drought much better than where the conditions are otherwise. Thus, paradoxical as it may seem, by making provision for a wet season one is better prepared for a dry time. The explanation of this fact is that drainage, by having a loosening effect on the soil, improves its texture, which in turn increases its powers of absorption and its capacity for retaining water.

### The Principal Source of Loss

Evaporation is the great source of loss. In some cases as much as twenty tons of water an acre is wasted in a single day. How to avoid this is a question of serious moment. Turning to Nature for a solution, we find that she mulches her forests with a covering of leaves and decomposed vegetable matter. As a substitute for this, we can, by pulverizing two or three inches of the surface soil, form a loose blanket of earth, which dries out, preventing the water below from passing up through it to the atmosphere. The average saving ranges from twenty-five to fifty per cent, varying with the depth. Generally, however, it is better to make the mulches quite shallow. They are made of the best soil, and when this is dry it is of no use for plant feeding. Some of the most effective mulches are made by top dressing with manure. The fertilizing constituents are carried into the soil by rains and become available as plant food, while the refuse remains on top, making an effective mulch for retarding evaporation.

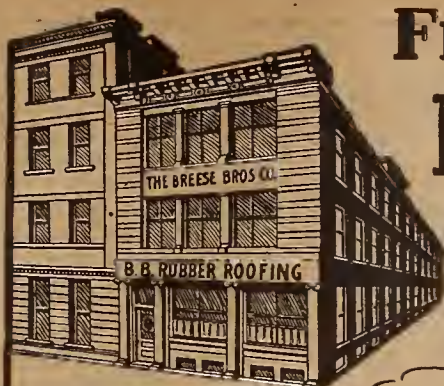
Early seeding is another preventive of the evaporation of soil moisture. A delay of one week after the soil is fit will mean a waste of from one to two inches of water, an amount sufficient to tide the crop over a critical period of drought. By actual experiment it has been proved that for each day's delay there was an average decrease in yield with oats of fifty-six pounds; barley, fifty-three pounds; spring wheat, twenty-nine pounds; and peas, twenty-three pounds, to the acre. With cereals it is a good plan to preserve the earth mulch until the grain is nicely up. This may be done by running a light harrow over the ground, the saving of moisture more than atoning for any injury done the young plants. As soon as the crop covers the surface, the rate of evaporation falls off very rapidly. With corn and other crops, where intertillage is possible, conservation of moisture may be continued throughout the whole season. Generally, cultivation will be found necessary about once a week, and especially after a rain, in order to prevent crustation, which restores capillarity and consequent loss of water.

### Humus Prevents Evaporation

The water capacity of land may be greatly increased by the incorporation of humus. The chief source of supply is barn-yard manure. This may be supplemented by plowing down green crops, preferably of the order Leguminosae, such as clover and peas. The presence of organic matter (humus) is a leading requisite in successful plant growth, being beneficial to all kinds of soils. To sand it gives a firmness that prevents percolation and the attendant leaching of fertilizing ingredients. Clays are improved in texture by being kept more open, thus adding to their power of absorption. Moreover, the evaporation of water goes on more slowly.

Plowing land in the fall has a marked influence on its moisture content. It has been found the following spring that soils so managed contain about two and one third times as much as where the field was left unplowed. The more or less rough and uneven surface tends to hold the winter snows and rains where they fall, thus resulting in a fairly equal distribution of soil water. Its loose, open character readily allows the melting snow and early spring rains to percolate into the soil instead of running into the nearest swamps.

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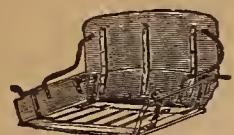


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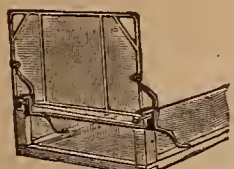
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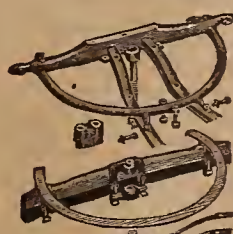
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## Public-Land Investigation

PEOPLE who imagined the public-land investigation had about blown over, or that the government had slackened its pursuit of the big corporations and individuals, were given a surprise by Secretary of the Interior Garfield January 18th. On that day the Secretary asked Congress to appropriate one million dollars for carrying on the campaign to recover valuable coal and timber lands. In a statement the Secretary set up ninety-one of the larger cases wherein alone over one hundred and ten million dollars' worth of timber and mineral lands had been fraudulently acquired during the past six years. These are present-day values.

An analysis of the big coal-land cases shows that if the lands are recovered and Congress shall pass a law selling the right to mine coal at ten cents a ton royalty, instead of selling the land itself, these lands will eventually yield the people over six hundred millions of dollars. Suits to recover lands can only be brought within six years after patent; and as to these big cases the Secretary's statement says "We are really in a race with the statute of limitations, and we must act quickly."

\* \* \*

A dramatic incident is shown in two big suits against Colorado corporations to recover about three million dollars' worth of land. Patents to these lands were six years old December 8th last. Special agents were informed of the fraud in November, and there followed a race through several states to locate the dummy entrymen and get the evidence before that time. By December 5th every man was found and the whole transaction uncovered. The cases seem complete, and the United States attorney remained at his desk for twenty-four hours drawing up the voluminous court papers, filing his suit on December 7th—twenty-four hours before the government would have been foreclosed. In a Pacific coast timber case, involving a big Minneapolis corporation the frauds were unearthed and suits filed only a few weeks before the six-year period ended.

\* \* \*

Secretary Garfield's call upon Congress for funds shows that he has been carrying on very effective investigations for the past year. Last year Garfield said to his field men: "Keep out of the papers; don't talk; but get the facts, regardless of whom it hits; but remember the honest settler shall have your aid and help." That his orders have been obeyed is shown by his detailed statement of work performed. During the year about five million dollars' worth of public land was recovered, and ninety-four persons were convicted of land crime. On the other hand, of twenty-seven thousand complaints filed against settlers, the field force have found good faith and recommended patents in over fourteen thousand cases.

\* \* \*

In addition to prosecuting the big cases the Secretary calls attention to the need of more men to reach the complaints now holding up over thirty thousand individual entries. Of the individual cases the statement says not over one half of the complaints have been found justified. Among the big concerns involved are the Southern Pacific to recover about three hundred thousand acres of mineral lands in the rich mining regions of Nevada, the Union Pacific to recover several million dollars of coal lands in Wyoming, the Smelter trust, and four or five big Colorado corporations to recover over ten million dollars in coal lands, an eight-million-dollar suit in Utah, over ten million dollars of coal land in Alaska, and probably twenty million dollars' worth of timber lands in Oregon and Washington.

\* \* \*

One case illustrates the devilry from which settlers recently suffered—a case wherein a land officer worked a scheme of accepting the purchase price of desert, homestead and timber entries, and then suspending the entry, pretending charges were pending. He then used the money to pay for timber lands entered by dummies. The dummy entries were sent to Washington

as regular, and, when patent issued, the lands were transferred to a new-formed corporation, now claiming to be "an innocent purchaser." A gratifying piece of news in these big frauds is that no man now in public life is involved. Also, there seems to be a disposition on the part of Congress to give the Secretary all the money he wants, with the injunction to go ahead and make good by recovering the lands.

## Taft a Progressive

WILLIAM THE CALM is the man behind a message—a message to his countrymen over which they rejoice.

At the very beginning of his inaugural address he outlines broadly what the people may expect from the new administration. It is a pledge from a man of courage, fidelity and steadfastness who means exactly what he says. Taft stands squarely on the Roosevelt policies and proposes to enforce the law, justly, fairly and effectively. Frank and plain are his words:

"I have had the honor to be one of the advisers of my distinguished predecessor, and as such to hold up his hands in the reforms he has initiated.

"I should be untrue to myself, to my promises and to the declarations of the party platform upon which I was elected to office if I did not make the maintenance and enforcement of those reforms a most important feature of my administration. They were directed to the suppression of the lawlessness and abuses of power of the great combinations of capital invested in railroads and in industrial enterprises carrying on interstate commerce. The steps which my predecessor took and the legislation passed on his recommendation have accomplished much, have caused a general halt in the vicious policies which created popular alarm and have brought about in the business affected a much higher regard for existing law.

"To render the reforms lasting, however, and to secure at the same time freedom from alarm on the part of those pursuing proper and progressive business methods, further legislative and executive action is needed. Relief of the railroads from certain restrictions of the anti-trust law has been urged by my predecessor and will be urged by me. On the other hand, the administration is pledged to legislation looking to a proper federal supervision and restriction to prevent excessive issues of bonds and stocks by companies owning and operating interstate commerce railroads.

"Then, too, a reorganization of the Department of Justice, of the bureau of corporations in the Department of Commerce and Labor, and of the interstate commerce commission, looking to effective co-operation of these agencies, is needed to secure a more rapid and certain enforcement of the laws affecting interstate railroads and industrial combinations."

Let us glance at one expression in this extract:

"Proper federal supervision and restriction to prevent excessive issue of bonds and stocks by companies owning and operating interstate commerce railroads."

There is the germ of coming reform in both federal and state laws governing the organization and combination of capital for all business purposes. And this reform is absolutely necessary to abolish many present abuses of corporate powers and privileges.

## A Random Spark

NOW that Spring is showing her head, we all are thinking of the work before us in getting the most and the best out of Mother Earth. It is in a way a kind of pity that this careful and frequent cultivation of the soil takes up so much of a man's time that could interestingly, if not profitably, be spent in watching the revision of the tariff. The seventeen-year locusts and the tariff revision have about the same size orbit, though not necessarily a coincident appearance. Both of them make a loud racket and are considered to be fearful visitations. But by the time the locusts get through, and the new set of them burrow into the ground for another seventeen-year period, it is found that not much has been done except the boring into some small twigs which the next high wind breaks off. Nothing else happens, in spite of the letter "W" on their wings, which the intelligent creatures wear there to signify "War." Will that be the outcome of revision when the tumult of the battle of the tariff dies?

## Back Talk to Lewis

## Letters From Readers

EDITOR OF FARM AND FIRESIDE:—

By all means let Mr. Lewis give us the information about the national government which he has.

New Jersey.

WM. D. BRUDEN.

TO ALFRED HENRY LEWIS, FARM AND FIRESIDE:—

Many farmers are wondering if the government is rotten to the core. With all the trusts arrayed against the farmer, they can handle him just as they please.

We hear some talk about farmers organizing, and some farm papers think it would be just awful if the farmers did organize. No, it wouldn't be right at all. On the other hand, it seems to be all right for other business men to form a trust and run all small concerns out of business, so they can have full swing. We can all see how cheaply they want the farmers' produce. Then just see how the prices change when once it is in their hands, to the detriment of the poor laborer.

Why is it some people want to pile up money by the millions when they know they are taking bread from poor, hungry children? They go on with their greed and graft, and where will the end be? Will the government tolerate such rottenness forever, or haven't we any laws to control such people, so they cannot stalk about doing as they please in this so-called free country of ours? And why have they any more rights than the poorer classes? If the law undertakes to pinch them, they kick up a panic or cause a commotion, so that they can harvest the farmers' hogs and grains. There is always an oversupply when the farmer owns it, but just as soon as it is in their hands there is a scarcity. When the law does try to line them up, like Francis Joseph Heney, they shoot. It doesn't seem as though they would get their just dues on this side of the Judgment Day; and then if there is any loophole, they will try to slide through.

Michigan.

D. FREDERICK.

EDITOR OF FARM AND FIRESIDE:—

The page on Politics is, I think, an interesting and very important innovation in FARM AND FIRESIDE. There is no subject that the farmer takes less interest in or needs educating on more than this. He is a Republican or Democrat because his father was, and for a few weeks before election he shouts for his party, not knowing or caring a jot what that party is going to do. He is so ferociously conservative that he blocks every move of any party or individual who would, if given any support, improve his position. It is only because he thinks a whole lot of "Teddy" that he does not raise an angry war about "the country life commission," which has, if nothing else, developed the fact that every farmer in the country is asking for parcels post and savings banks. This fact having developed, there ought not be any reason for Mr. Lewis' advice that we all should write our legislators on the subject. The fact that Mr. Lewis suggests this as a "forlorn hope" shows that he, as well as your (in my opinion) most sensible of your contributors, Mr. Fred Grundy, realize that it is a very "forlorn hope."

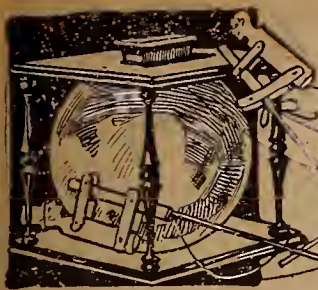
When I see our senators and representatives go to Washington comparatively poor men, and in a year or so put up big buildings, and other enterprises, all with their own money, on their rather small salaries, it makes one think there is too much loose money in the District of Columbia to let a few letters have much effect.

Although a Republican from heredity and environment, I am beginning to think that we shall have to utilize the trust system by using their organization in perfecting the government ownership of public utilities, or a moderate conservative socialism. I am afraid that another name will have to be found for the party. The Socialists, by their rash revolutionary mode of talking, have got the name of Socialism rather into disrepute. It is to a great many people (Socialists at heart) like a red rag to a bull. But this is in my present opinion the only way to prevent us all becoming owned, body and soul, by some, or perhaps finally only one, monopoly, controlled perhaps by a score of millionaires.

Montana.

H. C. B. COVILL.





# Politics

By Alfred Henry Lewis



SOME OF US WILL MISS MR. ROOSEVELT, or I'm no prophet. Personally I experience a sense of loss in his going, nor do I feel like letting him altogether go without some liberal word. Wherefore, to the limit of my space, I shall tell my mind of him. Let it flatter or offend, I shall say what I know concerning him.

Mr. Roosevelt in the White House has never failed to be a man—a man wrong or a man right, but always a man. Also, while he was there you knew you had a White House.

Mr. Roosevelt has stood for the moral and the mental. Also, he has believed in the physical as implicitly as he has believed in the foundations of a house. He has realized the world he lived in and made a cult of force. Not Bismarck when he spoke of cannon balls as the iron dice of destiny, not Cromwell when he said that a battleship was the best ambassador, not Napoleon when he declared that Providence fought on the side that owned the heaviest artillery, was more than has been Mr. Roosevelt, the disciple of the physical.

Mr. Roosevelt is ardent, generous, open, sincere, bold, aggressive, human. He has held that in the drama of government the presidency is not a thinking part. He has been virile, not flabby. His blood is hot and red; he has loved, hated; his friendships have been as relentless as his feuds. He has refused fear, declined failure. He has been nobly ambitious, and shown himself no one to write his name in snow.

\* \* \*

THE COURSE OF MR. ROOSEVELT has not shifted since his cradle days. No American man during a quarter of a century has changed less than has Mr. Roosevelt. With him abides a genius for displacement. He comes to the fore, enlists the early notice of the audience, and one reads of him as far rearward as the convention that selected Mr. Garfield. Since that time he has been a Member of the Assembly, Chief of the Civil-Service Commission, Police Commissioner, Assistant Secretary of the Navy, Soldier in the field, Governor, Vice-President, President. No one before was so whisked up the steeps of honor. And yet no one was ever so slightly changed. The Roosevelt of the White House has been word for word and line for line and thought for thought and deed for deed the same with that Roosevelt who was Vice-President, Governor, Soldier, Assistant Naval Secretary, Police Commissioner, Chief of Civil Service and State Legislator.

This quality of changelessness, of induration, cannot be imitated. One would as well talk of imitating iron, or of making one's self granite, at the mere expression of a wish. This trick of the immutable is the earmark of the congenitally great. Grant—as I have told you—had it, who went from low to high. Burr had it, who went from high to low. It is such as Washington and Jefferson and Jackson and Lincoln and Grant and Roosevelt, the rooted and the changeless ones, who perform as snubbing posts of history; it is to them a race tied up to keep itself from going adrift.

\* \* \*

MR. ROOSEVELT INVITES CONFIDENCE by the enemies he makes and what those enemies say of him. He has been peculiarly offensive to the organized hypocrisy and wealth-made cowards of his day. There has been rife in every hour, as plenty as poets in a country town, a sort of American of hollow head and hollow chest and hollow heart whose concern was for the Rights of Property rather than the Rights of Man. That sort is with us now. This American would never have signed a Declaration of Independence or fought at Bunker Hill. King fearing, king adoring, he would have lived out his snug existence; there would have come no Concord, no Yorktown, if their construction had depended upon him. His private walk is emphatic of that inhuman form of goodness that aims at respectability rather than at right. He is of utmost use to himself, no use to any one else. His fancy is drab and tearful, while his courage is as pale as paper. As a rule he has the red-squirrel talent of accumulation and is rich. Also he cares as little how he gathers dollars as does the red squirrel how he gathers nuts. The big purpose of his life is riches, and so the method of their heaping be respectable, *vide licet*, legal, neither the blood of men nor the tears of women nor the wan faces of want-wrung children serve to stay him in their gathering.

It has been people of this description who feared and hated Mr. Roosevelt. Mr. Roosevelt destroyed Northern Merger, curbed the villainy of Coal. Other deeds of

If you don't agree with Mr. Lewis, "talk back" to him, confining your reply to two hundred words. We shall hope to publish some of these replies from time to time.—THE EDITOR.

kindred sort he did. And for so coming to the public rescue, those Tories of to-day loathed and still loathe Mr. Roosevelt.

Those Roosevelt-hating Tories are doubtless honest, and but act their natures—a statement which would be evenly true of rattlesnakes. It was and is reasonable that they should bewail a Roosevelt. Weakness shrinks from strength, timidity trembles before courage, and folk who could not shake footstools grow nervous at the nearness of one who might shake thrones. Also while, as says the proverb, you may know a man by the company he keeps, a still more accurate estimate of his character can be arrived at by studying the enemies he makes.

\* \* \*

MR. ROOSEVELT IS THE NATURAL SOLDIER. Weapon wise with sword or knife or gun, he has the instinct of combat and is capable of anger. He delights in a horse; his feet feel at home in the stirrup. He has a leaning toward the gladiator in man; he likes boxers, wrestlers. Also, of purest morals, it is such as he who pedestal woman, and bow before her as before a goddess. In all that becomes a man, Mr. Roosevelt is the symbol of a stark Americanism.

Mr. Roosevelt possesses a native skill for intimacy. The new acquaintance of yesterday is to-day the old friend. That comes of an inborn fairness, of a generous, confident lucidity of motive, which, compounded of courage and truth in even parts, conceals nothing and wipes away suspicion. Friendship is acquaintance plus trust and the latter is readily inspired by Mr. Roosevelt. Men of this sort have no furtivities; they never skulk. They are firm in friendship, fair in war. To come within eye shot is to know the worst and the best of them; and to know it once is to know it always. It was Drusus, when his architect asked how he would have him build his house, who said, "Build it so that every Roman may behold every action I perform." The tribune would have found his modern prototype in Mr. Roosevelt.

\* \* \*

THERE IS NO ACCOUNTING FOR TASTES, and there be folk who prefer Narcissus to Achilles. Even Byron declared that he would sooner be a Brummel than a Bonaparte. And so, as we have seen, there lived men, honest though dull, who have regarded Mr. Roosevelt as a menace. When he attacked the railroads and Standard Oil, they wrung their hands and talked of the disappearance of the Safe and Sane. To such timid, selfish, conservative ones, the masculinity and forceful integrity of Mr. Roosevelt made him seem dangerous.

Mr. Roosevelt offended the vanity of sundry magnates of money by compelling them to enter the White House during the same hours and through the same doors as did Messrs. Smith and Jones and Brown and Robinson and others of the common herd. In these days the President who practises democracy makes himself in certain eyes a peril and a threat. In the minds of some—and it sounds like a paradox—the most dangerous man in a democracy is a democrat.

The race for ages has suffered from adjectives. We should have been centuries ahead if in the beginning adjectives had been made a capital offense. I have said this before, but it's worth saying again. To charge that a man is "dangerous" is to give only your conclusion. Men don't need guardians; they need historians. Instead of warning a man you should point out the lion in the path and let him warn himself. Instead of telling him that a President is "dangerous," tell him what there is in that President's record or kind that should teach one of fair intelligence to fear a future public harm. The adjective is ever the weapon of the second rate, and epithet without evidence is oftener the expression of envy than of any emotion more reputable.

Villification is ever found limping in the wake of such as Mr. Roosevelt. Their democracy, their sympathy, the wide-flung humanity of their interest, their lack of an arctic heartlessness, their pride without disdain, are one and all disturbing to narrowists with whom heads are but hat blocks, and who, living on the

fortunes for which their fathers worked or swindled, sport a monocle, ape the ineffable, peruse Burke's Peerage, and play at caste. Since they know of nothing and may think of less, they fall back on an adjective and declare every man "dangerous" who has offended by alarming them.

Should you call a President dangerous, as Mr. Roosevelt has been called dangerous, and then come to a verbal halt, you infallibly drive the prudent to put questions. Why is he dangerous? Is it because he lacks the support of gold vampires laying their black plans to suck money from the veins of the public? Is it because he will not be managed and manhandled by broken hacks of politics? Is it because he prefers truth to intrigue, honor to safe disgrace? Is it because anywhere and every time he resents foreign outrage upon an American citizen, even though that citizen be utterly humble and obscure? Is it because he stands among the people, of and for and by them, despising and defying cheapsters of party who strike at public office in the thought of private gain? Is it because between Capital and Labor he aims at even-handed justice for both, and refuses to be bullied by either? If you can answer one of these in the affirmative, Mr. Roosevelt has been a dangerous man.

\* \* \*

CONVENTIONALISTS HAVE SAID that Mr. Roosevelt cared too little for law. They misstate the fact. They should have said he cared perhaps too much for right. When the lawful, usual road no longer ran in a right direction, he has pushed down a panel of fence and gone cross lots. Of this feather was Mr. Roosevelt's policy concerning a Panama Canal. He discovered that Germany, France, Russia, England and the American transcontinental railways were against him. The temperate in every age has bribed the torrid zone, and he found himself opposed by the sly gold of his foes. When Alexander drew his sword and cut the Gordian knot, it wasn't temper, but diplomacy. And so with Mr. Roosevelt. Through double lines of lies, in the face of bribes, in defiance of Red Tape, he forced the Panama Canal to victory.

Mr. Roosevelt sends his fleet into the Mediterranean, and rescues from Moorish robbers an American who else would have perished by their hands. Is Mr. Roosevelt "dangerous" when he forces the release of an American unlawfully in alien clutch a prisoner? Such things shock a stock market, but do they shock humanity? They excite the hatred of Wall Street, but should they invoke the anger of a reputable Americanism?

\* \* \*

MR. ROOSEVELT HAS A GREAT LOVE for children, and this has got him laughed at in an age lacking in magnanimity, and when selfishness has been raised to the plane of art—an age when children are found fault with for being young, and the aged for being old.

\* \* \*

MR. ROOSEVELT, LIKE JEFFERSON, like Jackson, never favors concealment. He doesn't understand government by secrecy. He holds to the belief that the government should have but two keys—one for the treasury, one for the jail. This inability to be furtive is the commonest trait of the breed of the battle ax—the breed that blows a bugle and attacks at noon. And a republic should class frankness high among the virtues: for secrecy has ever been a serpent whose frequent victim was the liberty of man.

Personally, Mr. Roosevelt has never forgot and never failed a friend. The memory of no friendship was to perish from the hillside of his regard. This has more than once been sent home to high-flying metropolitan politicians who, presuming upon their position as aristocrats of party, made demands, only to find them disregarded by Mr. Roosevelt in favor of party peasants of whom their high ineffable nobility had never heard. Mr. Roosevelt has been a shock to purple ones, a bane to bosses. He was born to slay bosses as Saint George was born to slay dragons.

\* \* \*

THERE YOU HAVE A FREEHAND SKETCH of Mr. Roosevelt! There you have him in hit-or-miss patterns, as was your grandmother's rag carpet! It is from such wood the world carves its heroes and its martyrs. There hides no contradiction in the terms. A martyr is only a hero who fails, a hero but a martyr who succeeds.





# The Soul of Honour

By Lady Troubridge



## CHAPTER XIV.—CONTINUED

MARCUS and Honour, left alone, looked at each other for a moment in an utter, intense silence. The great silent room, with its walls of red silk, on which hung the fairylike globes of light, framed them, as it were, in a picture, and one which afforded a startling, overwhelming contrast to the shabby room where they had parted.

Marcus looked at her with an assumption of ease and carelessness which he did not feel. Everything depended on the way he managed her now, and on what had passed through her mind in the interval, and he thought he would try some of the gay mockery which had always formerly reduced her to puzzled submission.

"Well!" he said, carelessly, "this is a curious meeting, isn't it? The last time I saw you I was accused of blighting your life, but this doesn't look much like it, does it? I think, my dear Honour, you ought to be uncommonly grateful to me for having left you that freedom which you have been able to exchange for this."

His eye swept around the vaulted room and rested on the brilliant figure opposite him. Yet there they did not linger long, for he simply dared not meet the burning eyes which stared at him from her chalk-white face.

She moved a step nearer.

"Coward," she said, "miserable, most miserable man. Yes, your base schemes have failed, and by the mercy of One above us who protects the friendless, they have come to nothing. Yet, Marcus, be careful, very careful in what you say now, for if you go on sneering at what you have done my forbearance will not last, and so I solemnly warn you."

Casual and harebrained as he was, he recognized that she was speaking the honest truth. The gleam of outraged womanhood in her eyes told him the secret of the past rested on his next utterances. One light sneering allusion to her bygone agony would scatter her forbearance to the winds. If it cost her her life she would accuse him to her husband. Had the fates permitted that word to be spoken much might have been spared her. But Marcus paused in time, and stepped forward uncertainly.

"Honour, forgive," he muttered.

The words held in them no real penitence, no hint of shame; they were perfunctory and cold; a coward's device to gain time, that was all. Yet in them lay hidden something, a reality that was neither sorrow nor compunction, but hatred. Yes, he hated her now with a sudden burning hatred, that was the strongest feeling his shallow nature had ever known. He would like to have rushed at the calm, splendid figure, to have forced her to her knees and beaten the life out of her with his naked fists. Then his secret would have been safe.

Honour saw the strange look he gave her, but she held no clue to enable her to grasp its meaning and his words touched her. The nobility of her heart made it respond to any appeal even from an enemy.

"I will forgive," she said slowly. "I think—I think I have. It was difficult at first, when—I loved you, but now it is easy, for my heart and soul and life are full of some one else. Some one who has lifted me out of the darkness and into the sunlight by his side. Some one to whom I would give a thousand lives, if I had them, to prove my passionate undying gratitude."

"Very pretty, I am sure," said Marcus shortly, "and no doubt your gratitude will be suitably rewarded."

"It is rewarded now," she said, "but not in the way you mean. I am telling you how I feel, because I choose you to thoroughly understand how less than nothing the thought of you is to me, but I am not telling you because I think you will ever understand. I know you, Marcus, your petty contemptible thoughts of me. You believe I care for your cousin for his money. You are wrong; it was the only thing that ever came between us." Her voice grew dreamy.

"The golden barrier did not take long to pass," sneered Marcus.

Her eyes dilated. "No, and shall I tell you why—it was because love came so quickly. I know now that it is the greatest things in life that come to one unawares."

Marcus knew that this was true. Had not his hatred, his consuming longing to deface and to destroy, had not that been

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## Synopsis of Previous Chapters

Marcus Quinten, impecunious and unworthy, but heir to the title and wealth of his cousin, and Jack Taunton, wealthy and honorable, fall in love with Lady Hyacinth Windermere. Her parents favor the former because of his prospects. They know nothing of the latter's immense wealth, and Quinten concealed the fact. The story opens at Ascot on Cup Day. A woman at the gate of the paddock accosts Quinten as her husband. He repulses her, saying that the marriage was false, and leaves her. She faints, and is befriended by Jack Taunton. Taunton learns Honour Read's story, and how she was deserted on the wedding day, and he urges Quinten to marry her. He refuses point blank. Taunton is refused admittance to Hyacinth's home, but meets her at the home of her cousin. She loves him, but says she must follow her parents' wishes. Taunton, failing to persuade Honour Read to expose Quinten to Lady Hyacinth, secures a position for her with Quinten's cousin, who is a misogynist, and requires a secretary who will not intrude on him personally, and therefore sends all his instructions by his valet. Honour feels that this cannot continue, and writes a note to Lord Vannister requesting him to give her a short interview, so that she may discuss the work assigned her. The following morning Honour receives a reply from Lord Vannister and goes into the garden to read it. She is angry and indignant at the note, and in her rage sobs out, "I hate him! I hate him!" At that moment she hears a low laugh at her side, and raising her head with an angry jerk, faces the intruder. She is startled to learn that the stranger is Lord Vannister, her employer. She then tells him the sad story of her life. Lord Vannister's sympathy is immediately aroused and he asks Honour if she will still remain as his secretary. In the meantime Marcus Quinten, who is down to his last penny, tries to borrow more money from Jack Taunton. Taunton refuses. A stormy scene ensues, and Quinten, enraged, leaves the room. Since his credit is everywhere exhausted, he is forced to go to Lord Vannister for a settlement, in order that he may marry Lady Hyacinth. Here he meets Honour, who Lord Vannister introduces as his wife. They both stand dumbfounded, and Lord Vannister, noticing their confusion, leaves them alone.

born in a moment; and was it not even now obscuring the sunlight, a plant of sudden deadly growth?

"After that it was easy to take everything," she said; "but let it be, it is too sacred. As for you, you have asked me to forgive."

"I do ask it," he managed to say.

"And I grant it, for although the feeling I had for you was utterly gone even before I came here, one thing remained from it, just to show that it had been there. I resolved to protect you by never revealing your name, as the man who had treated me so infamously. You are safe."

"Taunton knows," he said, below his breath.

"Yes, he does; but he will not tell. I have forbidden him."

A different woman stood before him, a woman gifted with a strange bewildering intoxicating beauty, a being of Fire and Snow, coldly brilliant, sure of herself, and defiant of fate. The pale rosebud had bloomed indeed.

"Taunton is my bitter enemy," he said, and then with a malignant glance at her he added, "Like the heroes of romances, we are rivals, for we love the same woman."

"Jack Taunton is a gentleman," said Honour, "and he will keep his word to me."

"Who else knows?" he asked.

"Sarah Gibson," she said. "She will

not tell now. Long ago she wanted to, but I would not let her."

"Then so it stands," he said, drawing a slow relieved breath. "I am glad that you see our interests are identical."

Her scornful glance rested upon him for a moment, but he thought he did detect a hidden anxiety in it.

"For all her big talk," he thought, "she dare not tell him," and then for the first time he felt safe.

He looked up to see her moving toward the door, her head held high, her white lace dress trailing behind her. Going without a look or a backward glance at him. Withdrawing as a queen might do who has accorded an interview to a subject.

Suddenly Marcus realized that the most important part of his mission was unfulfilled. In this woman's hands lay all the power. Had not Vannister practically said so; she could make or mar his destiny with a word to the man who adored her. And he, instead of trying to propitiate her, trying to convince her of his penitence, had spent the precious moments in sneering, cynical words. Fool! Fool! Perhaps he would never have another chance. It was more than likely that she would not put herself again in the way of being insulted; she would go to her husband and with a few words obtain his dismissal and then it would be all over. Husband and wife would be left to their golden dream of love and happiness, and he would be cast out. Now that the past



"Neither of them saw a pale face which for one moment looked in at them from the window; no warning whisper made Honour rush away before her tardy bliss was wrested from her forever, and in another moment the pale face and burning eyes were gone."

was irrevocably gone, he remembered how tender and true she had been, how placable, how easy to win over to forgiveness. Was it yet too late to touch her, to move her?

"Honour," he cried out, "Honour."

The sharp, sudden cry of intense bitterness made her turn.

He flung himself at her feet.

"Honour," he said, his passionate eagerness lending a spurious intensity to the words, and his voice almost choked with passion and despair.

"Well?" she said, drawing back with a gesture of distaste.

"Honour, do not go, do not leave me so. I have not half told you of my shame, of my sorrow. I am in great trouble, great difficulties. Will you not listen to them for the sake of the love that was once so real a thing between us?"

She raised her hand. "Stand back, please," she said, and he quailed before the majesty in her eyes. "Do not allude to our former love; it never existed with you, you never loved me, and I thank God for your baseness, since it saved me from you."

He was losing his nerve and self-control.

"Then for the sake of pity, of mercy, help me," he said, "or I shall be ruined."

Honour stood cold and rigid. "What is it you want?"

"Your influence with your husband," he said.

She remembered then for the first time Vannister's parting words, and appreciated the penitence of the man before her at its true worth.

"I see," she said, with a slow, cruel smile. "It is a question of money; and that, I think, you need hardly to discuss on your knees. Get up, Marcus. You are an arch comedian, I know, but your powers are wasted on me. I have seen you off the stage too often."

Like a whipped hound he crouched for a moment before her words, and then stood up.

"Now," she said imperiously, "state your case."

All trace of feeling was resolutely banished from her voice.

Marcus spoke with difficulty, so dry had his lips become.

"You will allow," he said hoarsely, "that we were both free to form what new ties we would."

"Your discretion left me free," she said, calmly, "what then?"

"I also—the words stuck in his throat.

"You wish to marry."

"Yes."

Her lips curled in a proud smile.

"My congratulations to you and—my condolences to her. Is that all?"

"No, it is not all," he cried, for she was turning away. "I am at the present moment heir presumptive to Gartlands, and I asked your husband to make a settlement on my future wife. He first refused, and in doing so he told me of his marriage, which has naturally changed my position somewhat. Later on he referred me to you, telling me to plead my cause with you. You see he knew no reason why it should be almost impossible to do so. Honour, Honour, you have found a new life full of happiness and good fortune. Can you not spare some crumbs from your table to feed me—"

At last he had found the right words to touch the noble heart of the woman he had so fearfully wronged.

She paused, and her fair brow wrinkled in thought as the position grew clear.

Marcus was being punished. With his own hands he had dug the pit into which he had fallen. His sin had veritably found him out. The equanimity of Honour's soul showed her a revenge which even heaven would not deny her; the only revenge which a Christian may take, and in taking it she would heap coals of fire on his head.

"What is it you want of me," she said, "or rather, what did you ask of—of my husband?"

"Her father requires a settlement," he muttered, "otherwise the marriage can never take place."

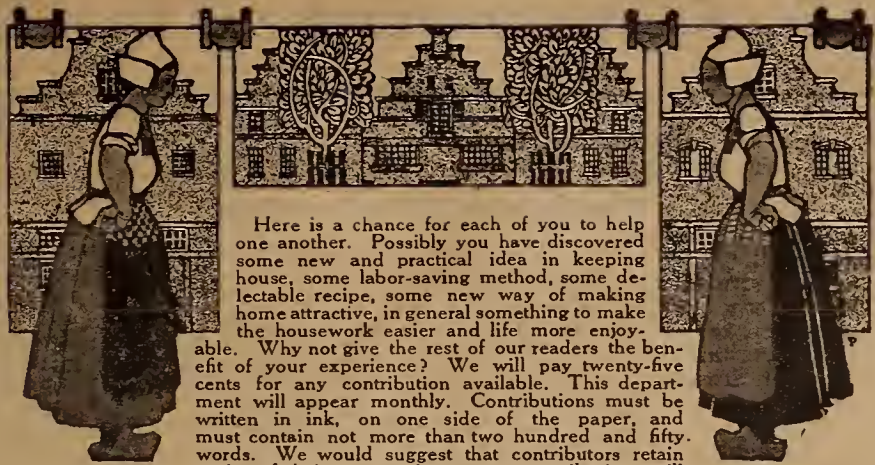
Honour moved slowly back into the room; he saw she was considering the matter, and he hung on her next words even as she, poor soul, had once hung on his.

He dreaded her as he watched her, dreaded the silent majesty, the fixed aloof serenity of her look as though only in coldest pity did she interest herself in the matter at all, and—fifty thousand

[CONTINUED ON PAGE 23]



# The Housewife's Club



Here is a chance for each of you to help one another. Possibly you have discovered some new and practical idea in keeping house, some labor-saving method, some delectable recipe, some new way of making home attractive, in general something to make the housework easier and life more enjoyable. Why not give the rest of our readers the benefit of your experience? We will pay twenty-five cents for any contribution available. This department will appear monthly. Contributions must be written in ink, on one side of the paper, and must contain not more than two hundred and fifty words. We would suggest that contributors retain copies of their manuscripts, as no contributions will be returned. Address THE HOUSEWIFE'S CLUB, care of Farm and Fireside, Springfield, Ohio.

## Braided Rugs

As I have just finished my eighth rag rug I thought some of the women readers of FARM AND FIRESIDE would like to know how I made them. The first thing to recommend about these rugs is their inexpensiveness, and then, too, they are so durable.

Instead of throwing your bright-colored dresses and other cast-off clothing into the rag bag, tear them into strips about one inch wide, sew them together, and wind into balls. Use these strips as you would yarn, and with a button hook crochet a chain about twenty-four inches long. Turn back the strip, and fill each stitch on each side of the chain with a double crocheted row.

Now that the center is started, fasten, and begin with another color. Repeat same as before, but at each corner increase so as to make the corners right angles.

For the border I generally use two rows of dark colors. If these directions are followed, the rug when finished will be oblong.

To make round rugs, crochet a short chain, and join together. These rugs can be made any size desired. They greatly resemble the old-fashioned braided rugs, but are not nearly so difficult to make, and are very durable. They add to the appearance of a sitting room and are equally attractive in a bedroom.

G. P., New York.

## Handy Clothes-Pin Holder

I HAVE a clothes-pin holder made of oil-cloth. Any heavy material, however, such as ticking, will answer the purpose. The holder is simply a bag, and at the top I fastened an embroidery ring by cutting out the cloth and stitching it around the ring. This leaves the opening at the upper side of the bag. To it I attached a stout hook, which when placed over the line will slide along while hanging the clothes on the line. It saves time in searching for the pins when the bag hangs so conveniently near.

Mrs. M. E. U., Illinois.

## To Keep Flowers Fresh

WE ARE all fond of flowers on the dinner table, but it always has seemed like such a task to keep them, until I heard of an excellent way to preserve them. It is this: Throw a small quantity of bicarbonate of soda in the water, and stir it until it is dissolved. You will find by doing this that your flowers will stay fresh for ten days or so longer than is usually the case.

Mrs. N. L. G. A., West Virginia.

## To Test the Oven's Heat

YOUNG housekeepers often find it difficult to judge an oven's heat for various foods. Here is a tried and true way of telling: Test the temperature of the oven every few minutes with a sheet of white paper. If the oven is of a temperature that will spoil the food, it will blacken, or even blaze. If, however, the paper becomes a dark brown, darker than a well-browned loaf of bread, the oven may be used for pastry, biscuits or buns. When the paper becomes a dark yellow, you will know that the oven is the right temperature for baking bread, meat, chicken pie or large cakes, such as pound or fruit cakes. When the paper colors pure yellow, bake sponge cakes, angel and layer cakes, and pies where the filling has been cooked before the crust.

Mrs. M. S., Massachusetts.

## When Mixing Pancakes

I WONDER if every housewife knows that potato water is just as good to mix buckwheat pancakes as buttermilk? I use part potato water and part milk, and it makes them lighter than the milk alone. And if no milk is to be had, the water alone makes them good.

R. M. S., New York.

## Cure for Sick Chickens

THE following is an excellent remedy for sick chickens: One teaspoonful of permanganate of potash in one quart of water. Take other water away from them, and when they become thirsty they will be glad to drink this. It is a "cure all." I had two hens that were sick. They became very thin and their combs were very pale, and in time they died. Another hen started to go the same way, when I heard of this remedy. In two days' time there was a slight improvement, and before long she grew strong and the color in her comb became brighter. Since then I have had no more trouble with sick chickens. Try it!

P. K., Idaho.

## Dandelion Wine

FOR a good tonic in the spring or to take after an attack of grip, nothing is better than the wine made of dandelion blossoms. We usually make it every spring, unless we have a supply left over, and are never without it. It is made as follows:

One gallon of blossoms and a small handful of the roots; over these pour one gallon of boiling water, and let stand for twenty-four hours. At the end of this time add five lemons and three pounds of white sugar, and let it stand two weeks, or until it ferments thoroughly. After it has ceased working, strain, and bottle. Sometimes it takes longer for it to get through working than other times, on account of the difference in the amount of heat it gets.

Some people prefer adding part orange instead of all lemon, and also a handful of raisins, but this is only to make it more palatable when taken, as it does not add to the value as a medicine.

I. B. M., Michigan.

## Unboiled Flour Starch

UNBOILED flour starch made from the following recipe will not stick to sad-irons.

Take one cupful of flour, and make into a thin paste of the consistency of thick cream, using cold water and stirring in a little flour at a time, to prevent it from becoming lumpy. Then pour into this paste two quarts of boiling water and a lump of lard about the size of a hickory nut. Stir for about three or four minutes and use the starch warm. You will find that your irons will not stick and your clothes will be as white as snow.

Mrs. C. J., Tennessee.

## Cakes Without Eggs

HERE are two recipes that I could not do without:

**COFFEE CAKE**—One cupful of sugar, one cupful of molasses, one half cupful of shortening, one cupful of cold coffee, one teaspoonful of soda, one teaspoonful of cinnamon, one of allspice, one half teaspoonful of cloves, and flour enough to make a stiff dough. Use scant cups.

**OATMEAL COOKIES**—One cupful of oatmeal, two cupfuls of flour, one cupful of brown sugar, one half cupful of butter and lard. Work all together as you would when making pie crust, and moisten with one half cupful of water in which a teaspoonful of soda has been dissolved. Salt to taste. Roll very thin, and bake in a medium oven.

M. E., Ohio.

## Questions Asked

I HAVE a very heavy foot tub heavily enameled. The enamel has broken in one place on the inside. What can I use that will dry perfectly hard, or is there any other way to repair the break? I have tried white enamel, but it will not harden.

What can be used on white walls to whiten or color them that will not interfere with putting paper on them at any time? If lime is used they will have to be scraped.

M. B. W., Virginia.

# Dare You Throw Burning Coals On Your Roof?

Burning coals thrown on a roof of Ruberoid harmlessly sputter away—and die out.

They do not set fire to the Ruberoid. They do not set fire to the timbers underneath.

Yet a roof of Ruberoid is more than mere protection against fire.

It is protection against the cold of winter. Being a perfect non-conductor of heat, it keeps the warmth of the house in.

It is protection against the heat of summer. It keeps the building cool by keeping the sun's heat out.

## Seventeen Years of Test

And it is more. It is wind proof, rain proof, snow proof. It resists acids, gases and fumes. Because of its great flexibility, it is proof against contraction, expansion and the twisting strains which every roof must bear.

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For with every roll comes the Ruberoid cement with which you seal the seams and edges—seal them permanently against the weather and against leaks. You will find many roofings which look like Ruberoid—but none which wear like Ruberoid.

For the first buildings ever roofed with Ruberoid—more than seventeen years ago—are still water-proof and weather-tight.

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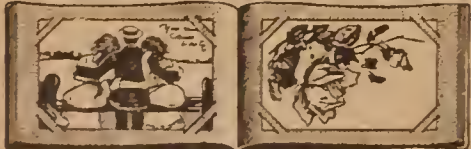
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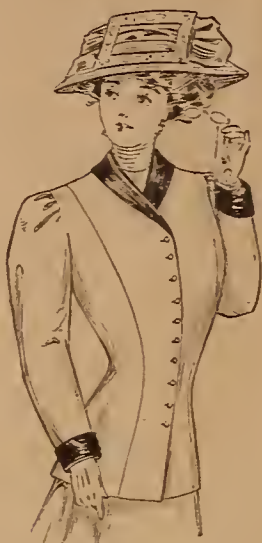
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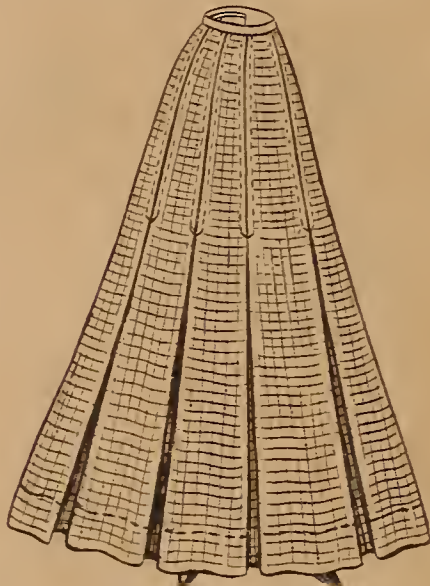
# Easter Fashions From



No. 699—Plain Tight-Fitting Coat  
Pattern cut for 34, 36, 38, 40 and 42 inch bust measures.



No. 986—One-Piece Princess Apron  
Sizes 4, 6 and 8 years.



No. 1043—Nine-Gored Maternity Skirt  
Pattern cut for 24, 26, 28, 30 and 32 inch waist measures.



No. 1296—Baby Dress With Yoke. Pattern Cut in One Size

BOTH rough and satin surfaced fabrics will be used all through the spring and summer. The finish of the fabric depends entirely upon the type of the gown and the occasions for which it is being designed.

For spring-morning wear there are the roughest of serges. They are light in weight, however, and are seen in a greater variety of colors than ever before. They are made up in dresses and also in skirt-and-coat suits, the skirt showing the high jumper effect.

Rough shantungs are another of the very smartest fabrics for tailored suits, and although they are dyed in many colors, they are extremely fashionable in the natural shade. Linens in the pastel colors and rough in weave are also the mode. Among the cotton fabrics the crêpes and all of the crinkled goods are considered very chic.



No. 994—Shirt Waist With Buttoned-Over Tabs

Pattern cut for 12, 14 and 16 year sizes. Quantity of material required for medium size, or 14 years, two and three fourths yards of twenty-two-inch material, or one and three fourths yards of thirty-six-inch material, with one fourth of a yard of contrasting material for trimming.

No. 995—Five-Gored Skirt With Box-Plaited Back

Pattern cut for 12, 14 and 16 year sizes. Quantity of material required for medium size, or 14 years, seven yards of twenty-two-inch material, or five yards of thirty-six-inch material.



No. 1297—Two Baby Sacques

Pattern cut in one size. Quantity of material required for either of the sacques, two and one half yards of twenty-two-inch material, or one and one half yards of thirty-six-inch material.

THE softest of white cotton crêpe is one of the new materials being used for baby sacques, but which never, after all, quite equals in daintiness French flannel. The woman who is clever with her needle can make a white flannel baby sacque a very beautiful little garment by a bit of hand embroidery. Embroidered dots in pink or pale blue silk floss look extremely pretty.



No. 1039—Dressing Sacque With Collars and Sleeves in Two Styles

Pattern cut for 32, 34, 36, 38 and 40 inch bust measures.

## MADISON SQUARE PATTERNS

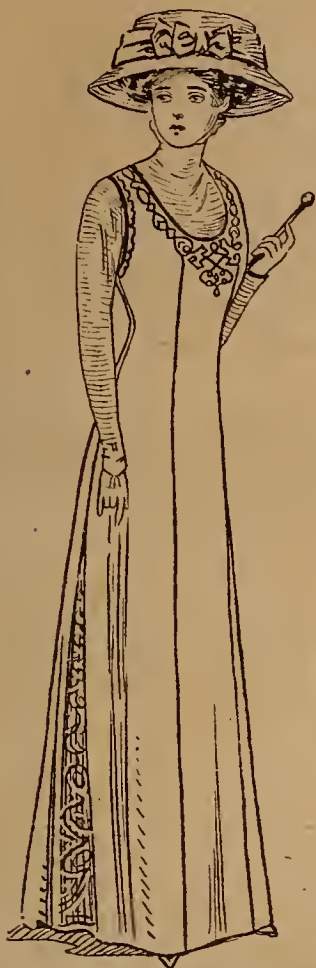
For every design illustrated on this page we will furnish a pattern for ten cents. The Madison Square Patterns are very simple to use. Full descriptions and directions come with the pattern, as to the number of yards of material required and how to cut, fit and put the garment together. The pattern envelope shows a picture of the garment. All of the pieces of the pattern are lettered, so that even if the collar in the pattern should look like the cuff, there is no possible way of mistaking one for the other, for each bears its own letter identifying it.

Send orders to the Pattern Department, FARM AND FIRESIDE, 11 East 24th Street, New York City. When ordering, be sure to comply with the following directions: For ladies' waists, give bust measure in inches; for skirt, give waist measure in inches; for misses and children, give age. Be sure to mention the number of the pattern you desire. Satisfaction guaranteed.

A distinctive feature of the Madison Square Patterns is the originality of their designs. They are always up to the moment in style and yet they are never extreme.



# Madison Square Patterns



No. 1281—Short-Waisted Guimpe  
Pattern cut for 32, 34, 36 and 38 inch bust measures.

No. 1279—Directoire Princess  
Pattern cut for 32, 34, 36 and 38 inch bust measures.

THE Directoire princess to be worn with the guimpe, as shown in the illustration Nos. 1281 and 1279, is another model which will be favored this spring and summer.

It has the flat panel effect, back and front, the wide armhole and the low round effect at the neck. Its specially new feature is the way the trimming is introduced at the sides of the skirt, giving a slashed effect, though in reality the trimming is merely applied to the side gores. Braid, either cotton or silk soutache, according to the fabric of the gown, is the best trimming to use, and the smartest effect will be produced if the braiding is self color.



No. 1199—Directoire Coat  
Pattern cut for 34, 36, 38 and 40 inch bust measures.

No. 1200—Circular Skirt—Box Plaits Back and Front  
Pattern cut for 24, 26, 28 and 30 inch waist measures.

Crowell Publishing Company

THERE is nothing monotonous about the fashions; they come, stay with us a short time, and just about as soon as we are getting accustomed to their new lines they suddenly disappear.

The plain sheath-fitting skirt is still modish, but it is being crowded a little into the background by some new models. For spring and summer Fashion is again nodding her head in approval at the skirt where platings show. The skirt entirely plaited is still out of the question, but skirts with plaited insets are among the very newest spring designs.

The cut-in-one princess gown will be worn very much this spring and summer. The fact that its effect may be changed by the different guimpes worn with it is something to be considered by the woman who cannot have many gowns in her wardrobe.



No. 1143—Combination Corset Cover and Petticoat

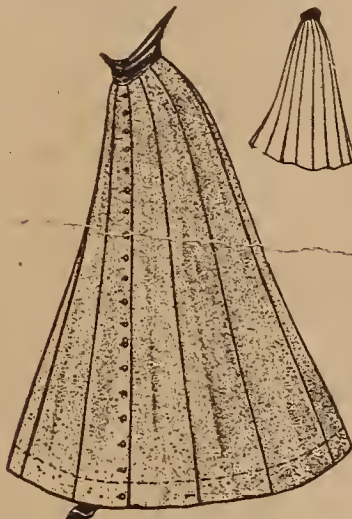
Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, five yards of twenty-two-inch material, or three and one fourth yards of thirty-six-inch material, with five yards of beading, three yards of ruffling and three yards of lace edging.



No. 1299—Child's Russian Dress With Yoke  
Sizes 6 months, 1 and 2 years.

## Fashionable Colors

GOLDEN tan and palest écreu are both very fashionable shades for spring frocks. A light shade of grayish blue is much the mode, as well as a new grayish turquoise. Silver gray, wood gray and elephant gray are smart colors.



No. 939—Thirteen-Gored Skirt  
Pattern cut for 24, 26, 28 and 30 inch waist measures.



No. 1289—Waist With Skelton Overblouse

Pattern cut for 32, 34, 36 and 38 inch bust measures.



No. 1286—Lingerie Waist With Plastron

Pattern cut for 32, 34, 36 and 38 inch bust measures.



No. 1288—Box-Plaited Shirt Waist With Lingerie Trimmings

Pattern cut for 32, 34, 36 and 38 inch bust measures.

## MADISON SQUARE STYLE BOOK

Are you accustomed to see the style book of the Madison Square Patterns? If you are, of course you realize its value to you in making your own clothes. The new style book, better and bigger and more attractive in every way, is now ready. Be sure to send your order for it. Enclose four cents in stamps, and address your letter to the Pattern Department, FARM AND FIRESIDE, 11 East 24th Street, New York City.

This style book will make you familiar with all that is newest in the spring fashions. It will tell you all about clothes for the little folks as well as the grown-ups. The smartest clothes any mother can make for her children are those from the Madison Square Patterns.

Here is our latest liberal offer: We will give any two Madison Square Patterns for sending two yearly subscriptions to FARM AND FIRESIDE at the regular price of thirty-five cents each. Your own subscription may be one of the two. When ordering, write your name and address distinctly. We will send FARM AND FIRESIDE one year, new or renewal, and any one pattern for only forty cents.



Each "NATIONAL" Tailored Suit is cut to order from measurements sent by mail. Each suit is shipped express prepaid and with the "NATIONAL GUARANTEE TAG" attached—guaranteeing that if the suit does not fit perfectly you are to send it back, and we are to refund your money and pay express charges both ways.

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Tub Suits	Muslin Underwear	Plumes
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## National Cloak & Suit Co.

197 West 24th St., New York City

Largest Ladies' Garmenting Establishment in the World  
Mail Orders Only No Agents or Branch Stores



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450 Page Spring and Summer Catalogue is now being sent into thousands of homes throughout the United States. WRITE TO-DAY and one will be sent to you FREE OF CHARGE.

When you order from Macy's Catalogue you receive exactly the same goods that are displayed in our store for the benefit of the most critical trade in the world, and you enjoy the advantages of our small profit system which is possible because of the strictly cash basis on which we operate, and the fact that we ourselves manufacture much of the merchandise we sell, doing away with all agents' and jobbers' profits.

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We submit these items as tests of the values we give to our mail order patrons. Order any or all of the garments, and if after you have examined them, you don't think they are worth fifty per cent more than the prices asked, you are at liberty to return them at our expense.

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No. 820—Waists, made of mercerized batiste, yoke of Valenciennes lace and embroidery insertion, trimmed with crochet buttons, lace insertion below yoke, clusters of fine tucks and two rows Valenciennes lace down the back, lace-trimmed stock collar, tucked long sleeves trimmed with Valenciennes insertion. \$1.98

No. 1493—Petticoats, made of heavy Taffeta silk, black, staple and delicate evening shades, deep flounce trimmed with accordion pleating, Van Dyke style, finished with narrow tucked ruffles, percaline dust ruffles; sizes 38, 40, 42 and 44 inches. \$3.79

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## HONOR ROLL

These are the FARM AND FIRESIDE Pony Contestants who have done so well that they deserve a place on the Honor Roll. The list is complete up to March 5th.

Mrs. Clara Kessler, R. R. 1, Glenshaw, Pa.  
Iona Morton, Kernersville, N. C.  
Ralph Akin, Johnsonville, N. Y.  
Ralph M. Yarger, R. R. 1, Dakota, Ill.  
Lester Groves, Hope, R. I.  
Ray Brewer, Geneva, Neb.  
Earl Crotinger, R. R. 4, Grover Hill, Ohio.  
Martha Townsend, Sellersburg, Ind.  
Millie R. Page, Berne, N. Y.  
Robert L. Fouts, Thomasville, N. C.  
Clarence Morley, Pittsfield, Mass.  
Flossie Lanner, Shipman, Ill.  
Lillian Stevens, Lebanon, Ind.  
G. Albert Stumpf, Burnside, Conn.  
Johnnie A. Knox, Bucklin, Kan.  
Fred Roth, Meriden, Conn.  
Ella Bendel, R. R. 2, Sardis, Ohio.  
Ruth High, Newfield, N. J.  
Emanuel Klingbeil, Clinton, Wis.

To learn how you can get on the Honor Roll, write to

The Pony Man  
FARM AND FIRESIDE  
Springfield, Ohio

### Agents Wanted

**AGENTS** PORTRAITS \$50, FRAMES 15c, sheet pictures 1c, stereoscopes 25c, views 1c. 30 days credit. Samples & Catalog Free. Consolidated Portrait Co., 290-81 W. Adams St., Chicago.

**JUST OUT** Low-priced, 3-lb Mop; turn crank all day; 15% to Agents; catalog free. U. S. MOP CO. 392 Main St. Lepsle, Ohio

**AGENTS WANTED** to sell direct to consumers. Big profits. Groceries, Coffees, Teas, Flavors, Perfumes, Soaps, etc. With or without premiums. Write for Catalog A. RUSHWAY FLAVORING EXTRACT CO. 951 Water St. Decatur, Ill.

**AGENTS** NINE IN ONE \$75 monthly. Combination Rolling Pin. Nine articles combined. Lightning Seller. Send for Sample. FORBEE MFG. CO., Box 205, Dayton, O.

**AGENTS—NEW INVENTION;** never before sold in your territory coin money. Automatic home fastener; horse owners wild about them; sells on sight. Any person getting territory will make a fortune. Write at once. Automatic Fastener Co., L 232, Cincinnati, Ohio.

**\$18 to \$30 A WEEK SURE**  
Farmers "Ever-Ready" 10 TOOLS IN ONE  
Agents selling wild over results. M. Snyder made \$46 in 3 hrs. Joseph Pine took 65 orders in two days. M. D. Finch sold 42 in 9 hrs. Had no experience. You can do it. To show it means a sale. FREE SAMPLE to workers. Foote Mfg. Co., Dept. 801 Dayton, O.

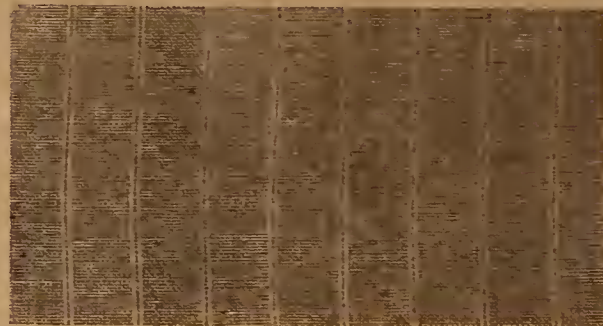
**"I MADE \$12 PER DAY**  
Selling This 7-Piece Kitchen Set"  
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are earning money—selling from 50 to 500 sets per week. You can do it. Send your address today and let us PROVE IT. Experience unnecessary. We show you how to make \$3 to \$10 a day. **OUT-FIT FREE** to workers. **THOMAS MFG. CO.** 404 Home Bldg. Dayton, Ohio

## Embroidered Waists and Accessories

By Evelyn Parsons



No. 41—Butterfly Bow of white linen over pink. The body of the butterfly is worked in padded Wallachian stitch. (This is buttonholing, the stitches taken from the center line out to the edge.) The wings are in eyelet work. The under piece of pink linen is gathered slightly at the center and sewed to the under side of the Wallachian work. When laundering, take the bow apart, and wash the pink and white separately. Stamped on linen, with under piece of pink or lavender, 15 cents; thread, 5 cents.



Sample of Striped White Dimity Used for Shirt Waist



No. 42—Collar of white linen with fine French embroidery. This matches in design the shirt waist pictured below. A dull-finished cotton is used for this very fine work. For padding the edge use any kind of soft cotton. Stamped on linen, sizes 12½, 13 and 13½, 20 cents; thread, 10 cents.



Pattern No. 43

No. 43—Shirt Waist made of one of the new sheer white striped dimities, like the sample illustrated above. There is a vine of French embroidery down either side of the front and at the bottom of the sleeve. The model is made with a tucked sleeve edged at the bottom with lace. The bottom of the sleeve is fastened together with tiny white lace buttons, and there are lace buttons down the front. Since it is probable that some may prefer the regulation shirt-waist sleeve with stiff cuff, we stamp the embroidery on a strip of the goods wide enough for a cuff. Then if a sleeve like the model is desired, this strip may be sewed on under a tuck. Perforated pattern, 25 cents; stamped on striped material, \$1.05.

NOTE—The linen collar is not included in this offer. It is shown above, and the price of same is given.

No. 44—Embroidered Belt made of a strip of white linen braid with a picot-finished edge. The embroidery is thickly padded and is worked in satin stitch. The center of the figures are filled with large French knots. Pad with four strands of cotton and use four to make the French knots. The satin stitch is worked with two threads. Stamped belt, 35 cents; white cotton, 10 cents.



Pattern No. 44 for Embroidered Belt

No. 45—Lingerie waists are more fashionable than ever. This is an exceptionally dainty blouse trimmed with lace and embroidered in eyelet and solid work. The centers of the flowers are French knots. Notice that the strip of lace in the sleeves runs up over the shoulder seam as far as the neck. First make the plain sleeve and sew it in the waist. Sew the strip of lace in place and cut the goods through the center under the lace. Turn back the goods, stitch, and cut off the edges. The stitching may be done by machine or by hand. Perforated pattern, 25 cents; stamped on plain white fine material, \$1.05.

### IMPORTANT NOTICE

In our stamped shirt waists the lines for cutting the waist are not given. We simply stamp the front and allow sufficient material to complete the waist. We wish to make this fact perfectly clear, so that should any of you desire either of these attractive shirt-waist designs stamped on material, when ordering you need not feel the least perturbed about the amount of material allowed. We see to it that plenty of goods is supplied with every order, and the word of The Crowell Publishing Company is sufficient.

Order Miss Parsons' embroidery patterns by number from the "Embroidery Department," Farm and Fireside, Springfield, Ohio. Remit by money order, currency, or stamps.



Pattern No. 45



# The Soul of Honour

[CONTINUED FROM PAGE 18]

pounds were in the balance. Again his fingers clenched themselves together as he thought of closing them on her round white throat. The mad impulse passed, and he stood mutely waiting her pleasure.

At last she spoke, and the words dropped icily from her one by one.

"I will do it," she said, and his heart bounded within him. "Because I do see that my marriage may have done you harm, and also to prove to you, that poor as I have been, money does not sway me. It is my revenge to feel that you will owe your chance in life to me." She paused and looked sternly at him. "For all of us," she said, "even the vilest, heaven holds a chance of amendment, and by my hands yours shall come to you."

"You are an angel!" cried Marcus, the blood rushing in thundering waves to his heart as he seized her hand and kissed it.

Neither of them saw a pale face which for one moment looked in at them from the window; no warning whisper made Honour rush away before her tardy bliss was wrested from her forever, and in another moment the pale face and burning eyes were gone, and only a light footfall pressed the gravel unheeded by the two in the room.

"I will do this on one condition," continued Honour, snatching away her hand with loathing and looking away from him as she spoke, "and it is this—I must know and realize that you are, so far as you are capable of the feeling, in love with this lady, Hyacinth Windermere. She is very young—nothing but a child, and knowing what I do of you, it is my duty to protect her if I can."

"I love her well enough," said Marcus. "You need not distress yourself about that."

"I am not distressing myself," said Honour coolly. "I don't think anything to do with you could ever distress me again in this world; but it is my duty, my sacred duty, to look after this girl's happiness. I know as no one else is in a position to know, that she is going to marry a man without heart or honor. She must be safeguarded."

The hot rage surged up in him again. Oh! to strike this woman to the earth! The wish was so violent that it turned into something more than a wish—something that had in it the first faint beginning of a resolve.

"You have the power," he said; "it is for you to dictate the terms."

"Very well, then. I shall advise my husband to give consent and to promise to settle fifty thousand pounds on—on your wife, provided that the marriage does not take place for a year, and that Lady Hyacinth comes here to make our acquaintance. Her family can hardly object to that."

He looked at her in ever-growing amazement. This woman had once thought herself his wife, and now she spoke of the arrangements for his marriage with a perfect and complete sang froid. It was impossible in truth for Marcus' vanity to let him truly understand her completely; her love had turned to loathing. All he recognized was that she was putting him in a dilemma which he had never foreseen, and he wondered secretly what her motive could be. Hyacinth in the same house with this keen-eyed woman, with her deeper knowledge. It would not take Honour an hour to find out that Hyacinth did not care for him, and was being forced into it by her mother.

And as for Hyacinth, what might she not discover, and with her, to know a thing was to reveal it. It was the maddest whim of Honour's and it would ruin him. Luckily it would ruin her also.

The door opened, and Vannister came in, walking slowly, his face changed as if by some blighting experience.

Honour sprang to him instinctively. "What is it?" she cried. "What has happened?"

## CHAPTER XV.

VANNISTER looked at her hard, and in his eyes for the first time she saw a want, the absence of that soft glowing, lover-like look which had dwelt there for her alone.

His glance looked now as it looked to the world, and as Marcus had often seen it, cold, impersonal, self-contained and aloof, a glance that seemed to shut her out.

"There is nothing the matter," he said, as she fell back vaguely pained, with a feeling as if she had been pushed off that high pedestal whereon he had throned her, and as she drew back she was acutely conscious of Marcus' mocking eyes, veiled as they were with a sham humility.

"Well, have you come to a decision

yet?" said her husband, still keeping his hard impersonal glance fixed upon her.

"Unless I have been so fortunate as to misunderstand her ladyship," put in Marcus in a manner that had in it both defiance and irony, "she has promised me her support."

"Indeed, I hope you were properly grateful," Vannister was measuring the young man with a hostile eye. "I am sure you must have been," he said laughing harshly.

"I was." A faint surprise was dawning in Marcus' mind. Was Vannister jealous of the prolonged interview? He knew not how else to account for his altered manner, which he saw was troubling Honour.

"Of course," she said in a low tone, from which all the purpose, all the vitality seemed somehow to have fled, "I could decide nothing, and really, perhaps, I should not have meddled in the matter at all." She looked at him like a child seeking encouragement.

"Since I asked you to do so," he said, "you need not apologize. What is your advice?"

"May I give it to you alone?" "No, tell me now. It has been discussed in front of Quinten, therefore there is no need for any further mystery."

"I do not wish Mr. Quinten to lose through our marriage," she said with simplicity. "That is to say, more than can be helped. I should like the position made as easy for him as possible."

"I see," he said. "Anything else?" She looked distressed. "Pray, Guy," she said, and Marcus started at the Christian name in her mouth, natural as it was, "will you not decide yourself?"

He moved impatiently. "If I chose to I could have done so. I heard you speaking fluently enough as I came in, but your eloquence seems to have dried up with my presence."

There was nothing for it but to go on. "Well, it seems to me," she said, "that if Mr. Quinten wishes to obtain from you such a large sum of money as fifty thousand pounds, he should be prepared to offer you proof that this engagement of his is neither hasty nor ill-considered, but that he really loves this lady, and in order to do this he ought to submit to a certain probation, a year, for instance, during which time you could satisfy yourself of their chances of happiness; but of course I merely suggest it. It is your affair."

"Not at all," said Vannister still with that touch of bland irony in his voice. "It is our affair now."

He turned suddenly on Marcus, and his manner had gained in cordiality and lost in sincerity.

"You have heard my wife," he said, "her decision is as generous as it is wise, and I approve of it. Whatever the future may bring, we can feel we have discharged our duty to you and compensated you for your natural disappointment. And now having gone so far, we won't do things by halves, we will let the reconciliation be thorough and complete."

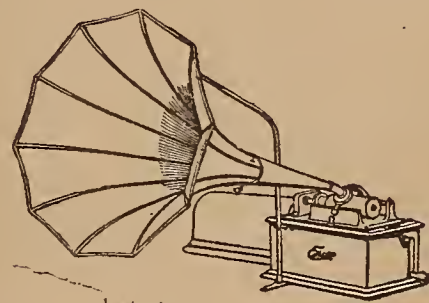
He held out his hand with something of his old manner, something of that noble, fearless look which had won Honour's heart.

"As you see, I am a changed man," he said; "the years have fallen away from me, and perhaps I shall understand you better now. Let us bury our old quarrels. We are to have a shooting party in three weeks, just one or two of the neighbors—they will come if only out of curiosity; and we will carry out Lady Vannister's suggestion and ask the Windermers. How will that suit you?"

"It will suit me down to the ground," said Marcus. That strange, new thought which had been keeping him company of late suddenly suggested to him a plan which made him catch his breath. Not a

[CONTINUED ON PAGE 28]

The Telephone, the Trolley and the Rural Mail Delivery bring you everything you need from the city except



## entertainment

By entertainment we do not mean that which you obtain from books, magazines or pictures. We mean the kind offered by the theatre, the concert or the opera.

You get such entertainment occasionally, but you go a long way for it, you pay a good price for it, and you often find that it is not worth the time, the price or the effort.

You work in the country and it is usually long hours. The time you have for entertainment is short, or at least made up of short intervals.

At night, for instance, there is an hour or two between supper and bedtime. You can go out; you can go to a neighbor's or you can go to town.

But you generally go to bed; not that you need this extra hour or two of sleep, but because there is nothing entertaining, diverting or informing that you can enjoy without more effort than you care to exert.

If at such times you could put on your slippers, light your pipe, lean back in your chair and listen to good music, a good song or an amusing story, wouldn't it be worth while?

That is the idea back of the Edison Phonograph. It collects the songs of the best singers and the music of the best bands and orchestras and spreads them broadcast throughout the homes of the country.

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is a wonderful thing. It seems commonplace because it is no longer new, but it does what no other instrument does. It carries the talent of the world's greatest artists into the home and places it at the disposal of whoever cares to listen.

The Edison Phonograph is Mr. Thomas A. Edison's development of the sound-reproducing idea which he invented. It is made under his personal supervision and has the benefit of all of his improvements.

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**We Want Good Live Dealers to sell Edison Phonographs** in every town where we are not now well represented. Dealers having established stores should write at once to

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## For Every Person Who Reads This Page

**M**ORE than 77,000 of the best people in America subscribed to FARM AND FIRESIDE during **January alone**.

Why did so many spend their money?

**First**—Because they had **confidence**—confidence in FARM AND FIRESIDE's ability to "make good" what we promised—confidence in its power for usefulness and accomplishment, gained by publishing for thirty-two years the greatest farm paper in America.

**Second**—Because the best brains and common sense that money can buy are contributing to every number of FARM AND FIRESIDE the most helpful and most interesting articles ever written for a farm or family paper.

**Third**—Because FARM AND FIRESIDE costs **less per copy** than any other farm paper—and is the biggest money's worth.

We want to get 50,000 more subscribers during the month of April. To do it, we are going to make you what is probably the most extraordinary offer for the money ever made by any publication. We make this offer to **new** as well as to **old** subscribers, and it will never again appear. This is **your very last chance**.

This offer will be permanently and finally withdrawn April 15th.

To every person who accepts the offer below within twenty days, as a special gift for promptness we will send prepaid a beautiful electro-tint reproduction **in color**, 10½ by 15½ inches, of the great painting "Spring Cleaning."

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For thirty-two years FARM AND FIRESIDE has been the most representative farm paper in America—the Giant of the Farm Press.

It shows the results of hard thought and hard work, backed up with money liberally but wisely spent.

The best farm brains and experience in the country fill the largest part of every number of FARM AND FIRESIDE. Why shouldn't such a farm paper be helpful?

But our plans for the future, already under way, will produce for our readers even a better paper—the greatest paper for helpfulness and accomplishment in the entire field of farm journalism.

No high-flower theories—no far-away ideas—just the plainest, soundest common sense. Here are a few of the things soon to be discussed in FARM AND FIRESIDE—things you will want to read:

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If you want to make sure of getting all these things, and many others, too, at a **special low price**, accept our offer below promptly.

**Rush Order Blank Below Before April 15th**



This is a small reproduction of the beautiful picture in color, 10½ by 15½ inches, that you will get, in perfect condition for framing, if you accept the offer below.

### Our Gift to You

FARM AND FIRESIDE will give to every person who accepts our offer below by April 15th, a beautiful electro-tint reproduction in **color** of the great masterpiece "Spring Cleaning," painted by the well-known artist Mary Sigsbee Ker.

This beautiful painting is one of the prettiest child pictures ever produced. It is easily the best of the year. It costs us hundreds of dollars, but we will send you a reproduction, exactly like the original painting, entirely free, if you accept the offer below, **promptly—by April 15th**.

"Spring Cleaning" is reproduced in color on fine quality stock 10½ by 15½ inches—almost the size of this page. It will be sent securely packed and postpaid, and will reach you in perfect condition for framing. This picture itself is worth more than we ask for the entire offer.

Then there are the battleship pictures of Uncle Sam's ships that have just returned from their 40,000-mile trip around the world. You will get twenty of these interesting pictures on post cards, in **colors**—each different—a superb collection—free with the offer below. Every true American is proud of the great ships and these pictures of them are in great demand.

The Map of the World included in the offer will show you by dotted lines the exact route of the battleship fleet, and every place where the fleet stopped.

This is the most extraordinary offer FARM AND FIRESIDE has ever made. You must mail your order April 15th **at the latest**, to take advantage of it.

### SPECIAL NOTICE

If your subscription has expired or expires during April, you will find a notice to that effect on page 3 of this number. Please renew by accepting this offer promptly.

You can make no better investment than 25 cents for FARM AND FIRESIDE the entire balance of the year, with all the other good things mentioned in the box at the left. If your subscription expires in May or any month after, we will put it ahead **ten months** from the time when it does expire, if you accept this offer at 25 cents.

Or, if you wish to renew for a longer time, we will furnish this offer complete, including FARM AND FIRESIDE a **full year**—24 numbers—for 35 cents; including FARM AND FIRESIDE **two full years**—48 numbers—for 50 cents; including FARM AND FIRESIDE **four full years**—96 numbers—for \$1.00.

Send us the subscription of one friend with your own at this reduced price, and we will send both you and your friend all the good things advertised in the offer opposite, and we also will send you, in addition, 25 post cards in **colors**, each different, from almost all the countries in the world.

These offers are all limited to April 15th.

### THIS COUPON

entitles any person who accepts any offer on this page, to the "Spring Cleaning" picture, the Battleship pictures, the Map of the World, and the other pictures, providing the subscriber's name is written on or attached to the order blank below.

P. S.—If you send the subscription of a friend with your own, write the name and address below.

Name \_\_\_\_\_

St. or R. R. Address \_\_\_\_\_

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State \_\_\_\_\_

Farm and Fireside \_\_\_\_\_

Springfield, Ohio. \_\_\_\_\_

Date \_\_\_\_\_

Enclosed please find \$\_\_\_\_\_ for which send me your complete offer as advertised in the March 25th Farm and Fireside.

## For 20 Days Only

You can get all these for only 25 cents. This offer is absolutely limited to April 15th.

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—twice a month for the entire balance of the year 1909—including the December 25th number—19 big, helpful, interesting numbers—equal to 1200 standard-size magazine pages—as much reading matter as a \$4.00 magazine; departments covering every side of farm life—unexcelled fashion and household pages—a great, big, farm paper and magazine for all the family.

### "Spring Cleaning"

—a beautiful painting reproduced in color—10½ by 15½ inches—the greatest masterpiece of the famous artist Mary Sigsbee Ker.

### Pictures of Our Battleships

—20 pictures in colors of the great battleships just returned from their 40,000-mile trip around the world—a beautiful collection.

### A Map of the World

—showing by dotted lines the exact route of the fleet in its trip around the world.

### Other Pictures in Color

—are also included in this offer. They will be furnished this year of 1909 in FARM AND FIRESIDE—full-page size—in perfect condition for framing.

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Less than  
the regular price of  
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**This Offer is Absolutely Limited to April 15th**



# Sunday Reading

## The Lord's Day

**D**ID you ever stop to think what it is that makes the Lord's Day always different from other days? As soon as you are awake in the morning you are conscious of this subtle difference. It cannot be in the sense of relaxation, for many of us rise at the same hour to perform nearly the same duties in and about the house. I am sure that if I were in a heathen land, a mere wanderer among the days, and no calendar near, I should know Sunday just the same. It is as if our heavenly Father had given to Nature the secret that the day is His, and that Nature proclaims it in a thousand ways.

What is the scene from your window? Is it winter? Then the snow lies more quietly and whiter, maybe, and the evergreens stand out against the sky in distinct outline that you seldom notice on other days. Is it summer? The trees wave and nod more gracefully, cast softer shadows, the breezes blow more leisurely, the sun shines caressingly, and the birds and the grasshoppers sing "Holy, Holy, Holy!" The Sunday spirit that is in the air is one of the greatest of mysteries. And what wonder, for it is the day not alone that commemorates the Resurrection, but also the day on which God rested after six days of labor. When we are in tune with the day, and help to proclaim it, to hallow it, then we know the joy of it.

Sunday was a little more strict when the old folks were young than it is now. There were special Sunday thoughts; there were Sunday books to read; there was a special Sunday behavior, and Sunday clothes were more sacred than they seem to be to-day. Sunday shoes had a delightful squeak, and there was Sunday perfume for the Sunday pocket handkerchief. There was rarely Sunday company, and the Sunday dinner was prepared the day before. Why, it was a genuine sin to sew on a button on Sunday morning. The children's toys were put away the night before, and mother's work basket and knitting work were put out of sight. Mother read her Bible and spoke of spiritual things, and it was a real family day.

I suppose no day in the week is so essentially mother's day as Sunday. What a rare opportunity if she but know how to make the most of it, if she can bring her spirit to harmonize with the day. Some mothers have a mistaken idea of Sunday. For although custom may have permitted it to degenerate into a day of relaxation and indifference, or of fashion, or of writing letters, or of dinner giving, it is a mere squandering of the precious hours. It is the day when the spirit of the home and of the family is nourished and fed, and when every one's forces are gathered together, and reinforced for another week. When your workaday week begins with the proverbial "blue Monday" you can calculate that something serious is the matter with your Sunday.

Every Sunday as it passes is a day that looks to the wife and mother for the striking of the key note. The modern man is sometimes indifferent, but even though he is, it can never be the province of the wife and mother to be—that is, if she is looking for favorable results, and I suppose she is. The spirit of the home needs the refreshment of the day of rest. The Creator knew that we couldn't get along without it. He did not classify it among the duties toward our neighbor, but gave it precedence in the duty toward God. And then, lest some argument arise—for we humans must always argue, the same in Moses' time, four thousand years ago, as now—He distinctly stated that God had made everything in six days and then rested the seventh day, and had therefore blessed the day and hallowed it. Sunday is the life, truth and love day of the family, and as a day it is spent as the wife and mother directs.

It is a great responsibility, mothers dear. There can be Sunday smiles and Sunday love as well as Sunday clothes and Sunday dinner, and by and by, when the children are grown and have left home, the Sundays that come to them will be anniversaries, honored and hallowed, if the home Sunday of childhood was what it might have been. Don't let the present become the might-have-been of the future. Now is the seed time in the growth of character. Character building is about all there is to the association which the children have with us elders, learning from us, copying us and our ideas, and gaining impressions when we sometimes are least aware of it.

HARRYOT HOLT DEY.

## The Secrets of Our Hearts

**T**HERE is a song that is often heard on the great Desert of Sahara which when translated into our tongue means: "God and I alone know what is in my heart!" What a tremendously big thought this is! I and my God have a secret together, and no other living soul will know unless I give him the key to my heart.

Is the secret worthy to be shared with our heavenly Father, or is it one that we would wish to keep closely locked in our souls? Ask yourself frankly, if in your heart and soul you are harboring any thought or feeling that you would be ashamed to have the world know. Perhaps your answer is, "I am overproud and jealous and I hate to see my neighbors getting ahead faster than I do. But I keep all this to myself and no one knows how I really feel." Remember, "God and I alone know what is in my heart!" If we hesitate to show our friends an unpleasant trait of character, how much more should we hesitate to show a meanness to the One who grieves over it far more than can an earthly friend. God has infinite patience with all our faults and shortcomings. He knows what is in our hearts, and if the desire to do right is there He will help us be strong.

Just what is in your heart? If there is a feeling of ill will toward any one, drive it out and you will be surprised how much brighter the world will seem. Half our grievances are imaginary.

If you are discontented with your present lot, strive to better it, and if that is impossible, make the best of things as they are.

For every evil under the sun  
There is a remedy or there is none.  
If there be one, try to find it;  
If there be none, never mind it.

Is your conscience troubled in any way? Have you perhaps misjudged and spoken harshly against a neighbor, and has your self-pride kept you from making what amends are in your power? Go to him and frankly apologize.

Make your heart the nesting place of the Dove of Peace and daily send her out into the world with some message of good will to your fellow men. She will always return to cheer and brighten your life.

Make your heart God's garden where in only the good and noble flowers shall grow and blossom and the weeds shall be cast out. Let God be the gardener, and trust the delicate plants of love and faith and charity and kindness to Him. If we are His right-hand men and assistants and do His bidding, the garden and its "first fruits" will gloriously repay us for our efforts to keep the weeds out.

Have you ever watched a sculptor at work on a clay model? He pats it here and pinches it there and molds it all into the shape that he desires it to be. But the clay is soft and plastic all the while. If it became hardened, the artist would have great difficulty in fashioning it into any semblance of a figure.

We are all as clay in God's hands, only we have it in our power to remain plastic. Do not become hardened, but allow yourself to be modeled and molded into the man or woman that God would have you be.

B. V. A.

## The Habit of Happiness

**H**AVE you ever thought that happiness is a habit which may be acquired and cultivated, just as one may cultivate politeness, or good manners, or a sweet smile? We are all creatures of habit, it has been said, and since happiness is a habit, let us hasten to make it our own.

It may not be easy at first. Constant happiness may seem as elusive as a butterfly, but a habit is not formed in an hour, you know. Try starting each day with the thought: "I shall be happy to-day, come what will." Very likely in an hour's time something will go wrong and you will have forgotten the promise made so cheerfully to yourself.

Never mind, try again to-morrow and the next day. Before long you will actually have forgotten how to be unhappy. The trouble is that most of us take ourselves too seriously and magnify the little trials and annoyances that come to us each day. But he is a coward who demands a pathway through life strewn with roses. What we call our troubles and disappointments are the initiations which give us an opportunity to show our worth and our right to enter God's kingdom.

## "Onward, Christian Soldiers"

**T**HERE comes a day to us, one and all, when a gray cloud floats across the sky of our happiness and all the world seems cheerless. We have reached the land of Trouble in our life's journey, a dreadful country of sorrows which it is necessary for us to traverse before we can reach the broad, sunny plains of Contentment. Those of us who have started on this journey with ever-abiding faith in our Leader, will find little in the land of Trouble to overcome our cheerful spirits and dauntless courage. If we look closely we may even discover the sturdy little flower of Hope springing up all along the wayside. Let us pluck and hold it close to our hearts while we journey onward.

We, who are wise, will try to forget this grim land of Trouble, once we are safely through it. We will look ever onward to something more glorious to come; but the unwise soldiers in our army will hark back to the trials they have passed through and overlook the beauties of the country they have reached.

God is a wise and loving general and surely we of His army should have faith to follow wheresoever He leads us—whether it be through dark valleys, over rocky steeps or through pleasant plains. Be sure that it is for our own ultimate good that we are being taught life's lessons. Everything would be made easier if we would stand firm in the belief that "God knows best."

## Are You His Friend?

**I**T is pleasant to walk daily with a dear friend; to talk over one's plans and hopes and ambitions with him and be sure of a ready sympathy and understanding. There seems almost nothing that we could ask of this good friend that he would refuse to give. But how immeasurably greater is the friendship, the kinship, that Christ feels for us. We may have Jesus with us every day and every hour in the day if we wish. His

hand is always outstretched to lead us on our way; His arm is ever ready to bear us up under affliction; His heart is overflowing with love for us; His ear will hear our sorrows as can no other, and His voice is constantly whispering tender words to us.

What more can we ask or hope for than a friend who is never out of patience with us, who loves us in spite of our faults and who is a never-failing inspiration for good?

Let us, then, with thanksgiving in our hearts, hasten to accept the wonderful gift of friendship that is held out to us.

## Is God Your Helper?

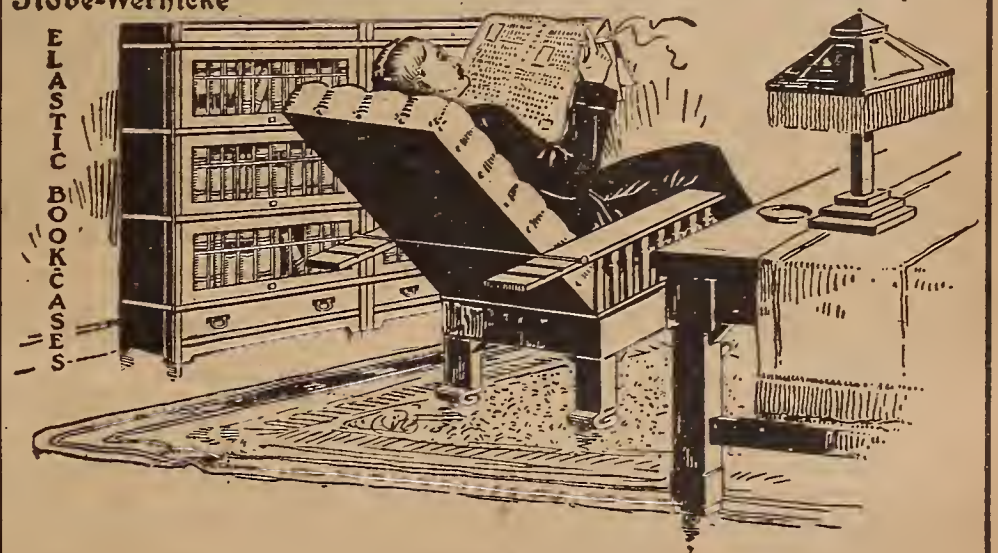
**H**ENRY WARD BEECHER, once said: "There is dew in one flower and not in another, because one opens its cup and takes it in, while the other closes itself and the dew runs off." Oh, how strongly this applies to you, to me, to all of us! Are you sitting with folded hands waiting for success and happiness to come to you, or are you, every day of your life, seeking them, working for them, never once losing faith in God, but always calling on Him to guide you along the rugged and steep pathway of life? What comfort is there to know that we have a God to whom we can turn in time of grief, sorrow or trouble.

Are you facing your every-day duties with a light heart, a willing heart, a good heart, asking God's help, God's love, God's protection, or are you climbing the rugged pathway of life alone, with a heart that is soured, embittered, unwilling, despising your lot, your neighbors, and the world, with its wavering support? You may say that you have prayed, but your prayers have not been answered. Have you prayed sincerely, unceasingly, never for one moment losing heart, but always feeling and believing that God hears your prayers and will answer them as He sees fit? If you have forgotten how to pray, begin now. Go to God to-day; open your heart to Him, and let Him share its innermost secrets.

F. M. E.

Globe-Wernicke

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## Young Folks' Department



### The Brown Beetle Tells Another Tale

By Laura Spencer Portor



THE leaves are coming again! And the birds, too!" said Shay-Shaw, the youngest and most thoughtful of the little brown beetles. "I wonder why they always come at the same time."

Shay-Shaw looked toward the old Brown Beetle. Now, the old Brown Beetle had been on many travels and knew many things, if only he had a mind to tell them. "Perhaps he knew why."

"You are exceedingly ignorant young things," said the Brown Beetle sharply but not unkindly.

He threw his spade aside—for he was digging diligently in his garden—and went into the house. The little beetles followed rapidly. Perhaps he would tell them a tale. There was a fire on the brown hearth, and there was just an hour before supper time. Would he, would he tell them a tale?

He sat down in his pet comfortable chair, and the little beetles stood about with their hands in their pockets, watching his face eagerly.

"When you are older I want all three of you to go a-traveling," he began. "It teaches one such a lot."

The little beetles found comfortable seats at once. He was going to tell them a tale, after all!

"Now, when I was traveling on the plains I came one night to an Indian camp. After supper the mother sat apart with the little children, while the men told tales of war. Now, the little Indians were just about as ignorant as you—just about—for presently I heard one of them say, 'The leaves are coming back to the trees, and to-day I saw a bluebird. I wonder why they always come at the same time.'"

Here Shay-Shaw, the littlest beetle, gave a delighted flicker of his wings. This was a story indeed! Not only a story, but the very one he wanted. He stretched his legs and settled himself to listen.

"Then the Indian mother said, 'Listen

while I tell you why the leaves and the birds always come at the same time. Once upon a time, when the Sun, the Great Magician, stood in the sky, he saw that God had made the earth and the rivers, the mountains and the sea, and all those other wonderful things which were to be subject to the Great Magician's magic. So the Great Magician stood above a tall mountain in the dawn, and raised his shining hands, and said to the land:

"'Bare land, bare land,  
Be clothed a rare land!  
Green clad, a fair land.  
Let me hear no note of sadness,  
Only gladness and more gladness.'"

they tried to dance on with gladness because the Great Magician had bade them do so. The bravest managed to dance on very gaily, but the less brave and less patient ones began to complain that if the cold continued they would not much longer be able to cling to the boughs. But the others still danced, and murmured little soft, glad songs, for they remembered the command of the Great Magician, their master:

"'Let me hear no note of sadness!  
Only gladness and more gladness.'"

"So, though their strength was failing, yet to appear more glad they put on gay colors. So the brave leaves did their

became, in their patient effort to obey the command of the Great Magician; and still they clung, and still they took on lovelier colors, and still they remembered his command:

"'Let me hear no note of sadness!  
Only gladness and more gladness.'"

"So even though their strength grew less, and though the less patient leaves below rustled and said, 'Let go! Come and drift and play with us!' yet they still clung to the boughs and still murmured patient little songs of gladness.

"One day the Great Magician stood in the heavens again, dazzling and wonderful. He saw the gay-colored leaves, thousands of them, still clinging to the trees, and he was touched by their lovely patience and obedience.

"Then he lifted up his great sun-lit hands and sang this Magic Song to them:

"'Patiently ye loved and long,  
Be ye turned to birds of song;  
Patiently ye strive and cling,  
Come again—again in spring.'"

"Then a wind came from the north, and with it, magically and wonderfully, the leaves drifted from the trees, and as they drifted they became changed. Wings they had, and their patient gladness was turned to song. Instead of dying, dancing leaves clinging to rough boughs, they were soaring, singing birds, and there was southward a great wonderful flight of them. From the red oaks countless robins called and joined the great flight. From the scarlet maple the cardinal took wing; the yellow birds and orioles and all those which have yellow upon their wings sang where the willows and beeches golden leaves had been, and from the more somber trees soared the thrush and the lark and rang the splendid song of the nightingale.

"Each chose a leader, and southward, southward turned their flight. And as they went, the old Magician stood in the heavens and said to them these magical lines:

"'Fly, fly,  
Under the sky!  
When spring time calls,  
Return again  
Over hill and over plain.

Faithful, faithful, ye shall be  
Types of sweet fidelity.  
When spring's tide is turned once more,  
Seek the boughs ye loved before;  
There your sisters ye shall find,  
Dancing, dancing in the wind.  
Winging, tireless, turn and come  
Back to them and make your home.  
They shall lovingly expect you,  
They shall welcome and protect you.  
Though your absence has been long,  
They shall make sweet murmuring;  
Though they cannot chant and sing,  
Ye shall do their caroling  
And fill their silence full of song."

"So the great flights of birds went southward, southward, day by day, as the Magician had commanded. And even as he had bade them, as soon as the spring tide turned once more, back they came. And returning, they found everything as the Great Magician had promised them. The trees were again clothed in green—their own beloved trees! Their sisters, the leaves, made a sweet, sweet murmuring of joy to know that these they loved and who had taken wing were back once more, really back once more.

"And so they came back each year, again and again."

The Brown Beetle stopped speaking and leaned over and gave the fire a poke. "And so that is why—" began little Shay-Shaw, curling up his toes and hugging himself with delight.

"There is a good reason back of everything," interrupted the Brown Beetle gruffly. "Remember that! These stupid white people who know no better than to call the Great Magician the sun, and who think that the birds just come back to the trees, oh, for no reason at all, cannot always tell you the reasons—that is true, but the reasons are always there. These Indians, now, knew that much, anyway. One picks up a great many such pieces of information on one's travels. That is why I mean you shall all travel when you are older—every one of you. It is very good for broadening the mind."

And little Shay-Shaw hugged himself again, and sat and thought in the fire-light, and wished and wished for the day when he, too, would be old enough to go on his delightful travels.



"Instead of dying, dancing leaves clinging to rough boughs, they were soaring, singing birds."

"Then slowly and as by magic the mountains and fields were clothed in green. And the trees were clothed with leaves, which laughed with joy and danced with gladness in every wind.

"Then the Great Magician bade different seasons to rise and go over the land. And they rose and went forth at his bidding—spring bringing flowers and loveliness, summer bringing heat and fruit, autumn bringing chill and frost.

"Now, as the chilling autumn came, the leaves felt their sap slip back and their green strength grow less. They began to grow weary of dancing; still

best, even though their strength was slipping away.

"But the chill weather continued. Those less patient and less brave grew tired and discouraged, and even a little fretful, and some of them let go and drifted to the ground.

"The Great Magician had not shown his face for days, but had stayed hidden behind a cloud. Perhaps he had forgotten them. Many more fell to the earth. But still the brave leaves clung patiently to the trees as best they could, though their little fingers were growing numb and weak. Yet more and more lovely they

### Cousin Sally's April Fool Party

DEAR BOYS AND GIRLS:—March 25th! Just seven more days until April 1st, and then that April Fool Party that mother promised you shortly after Christmas! What happy young people you must be when you think of all the funny little jokes and tricks you can play on your friends and the folks at home. Only don't play any trick that you will afterward have cause to regret. Have all the innocent fun you want, but don't carry it too far.

Perhaps many of you want to have a party, but can think of no novel ideas for entertaining, so especially for your benefit, Cousin Sally is going to plan one for you.

April 1st is a mighty jolly day to have a party, for it is then that King Gaiety holds full sway and things are carried along with a vim that is often missing at other times.

The invitations to an April Fool Party should be tiny notes folded into the shape of a fool's cap with a high peak, and should read:

You are cordially bidden to hold High Court with Her Majesty, Queen Mirth, on the first day of April.

When your friends arrive, they should be presented with dunces' caps (made of varicolored tissue paper pasted over thin cardboard), which they wear all during the evening. Titles should be printed on each of these caps, as Dame Frolic, Miss Revelry, Prince Humor, Princess Jollity, Duke of Happiness, Lady Sunshine, King of Fooldom, Miss Laughter, Duchess of Dunceland, Count Merrytime, and so on and on. There are ever so many funny names you could use. These names I have given are mere suggestions. A forfeit must be paid every time a boy or girl forgets to use the

proper title. These forfeits should be redeemed by all sorts of April Fool tricks.

The clever little hostess will play numberless April Fool pranks on her guests, and the boys and girls are sure to catch the spirit of the evening. One of the "funniest" boys could be rigged up as the Court Jester, and of course he will lead in all the games and frolics of the evening.

When supper is served, the guests should all take their places on high dunces stools at the table. And bells, bells, are everywhere, at their finger tips and at their toes, hanging from the chandelier and tied to the legs of the table.

The "feast" should be a regular April Fool feast. The sandwiches are thin slices of bread (unbuttered) with a cotton filling, salt in the sugar bowl and sugar in the saltcellars; ice cream in candy boxes; button molds dipped in chocolate for candy; lemonade "sugared" with salt; and the cake is an iced piece of wood. Of course there should be real "goodies" on the table, too, else this would be a sorry feast.

The final "fool" of the evening is when the hostess slyly sets the clock ahead two hours, and the guests, panic stricken, all fly for their coats and hats. Try it, boys and girls, for you will be sure to have a good time.

I wish you would write and tell me about your party—I mean those of you who give one—for I would so love to hear all about the funny things you did and the good time you had.

I want you all to write to me; tell me anything that you care to, for I want to know each and every one of you.

Trusting that your April Fool Party will be a great success, and hoping to hear from you soon, I am

Affectionately,  
COUSIN SALLY.

### The Letter-Box

DEAR COUSIN SALLY:—I am very much interested in the little "corner" and would enjoy to enter into the Post-Card Exchange. I rather prefer scenic cards. I live in the city where the Indians of the Northwest were subdued by Anthony Wayne (1794) and it was an Indian trading post. I like to read this little column and am very glad when the paper comes.

With love to you and your cousins,  
FAY B. SLOUGH, Age Thirteen,  
Defiance, Ohio.

DEAR COUSIN SALLY:—I write this to thank you for the beautiful box of water colors which were awarded me in the prize drawing contest. I never was so surprised as I was when our mail carrier gave the package to me from you, and talk about surprise and gladness when I opened it and found such a dandy box of paints.

Let me again thank you a thousand times for them.

Your cousin,  
L. S. GREENE,  
Freeport, Ohio.

DEAR COUSIN SALLY:—I was very much surprised to receive a handsome book for my drawing. It is most interesting. I am very much interested in our "little corner," and think the monthly contests are lots of fun.

With much love to you and the cousins,  
Affectionately,  
OPAL SLAGLE,  
Delta, Ohio.

### Answers to Puzzles of Hidden Cities

1. Cheyenne. 2. Springfield. 3. Helena. 4. Buffalo. 5. Salt Lake City. 6. Baltimore. 7. Newark. 8. Oakland or Ashland. 9. Little Rock. 10. Galveston. 11. Hayden.

### Winners in the Puzzle Contest

George D. Purinton, age fifteen, Independence, West Virginia. Virgil Sheeley, age ten, Washington, Kansas. Clifton Shaffar, age nine, Mountain Grove, Missouri. Florence Irene Parker, age thirteen, Findlay, Ohio.





# The Household



## Griddle-Cake Recipes

**W**HILE griddle cakes are very tasty and appetizing, they are not always wholesome and digestible, and for this reason many people object to them. However, this may be overcome by frying them on a soapstone griddle, which should be greased for the first cake, and wiped off with a cloth for each succeeding one. A soapstone griddle is a good investment and it does not make a smudge while the cakes are cooking. It should be wiped off immediately after using, and never allowed to soak in water.

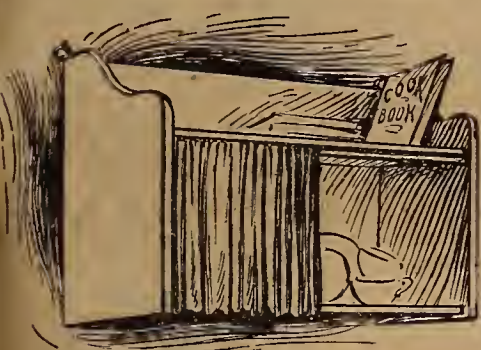
### Potato Pancakes

**T**wo cupfuls of mashed potatoes seasoned with salt, pepper and butter, two well-beaten eggs, one cupful of milk and one half cupful of flour sifted with one level teaspoonful of baking powder. Bake like any other griddle cakes.

Rice pancakes may be made like the above, using boiled rice instead of potatoes.

### Mock Buckwheat Cakes

**T**hese are without milk or eggs, and must be mixed over night. One quart of warm water, one half yeast cake dissolved, two tablespoonfuls of molasses, the same of melted lard or butter, one half teaspoonful of salt. Beat in flour enough to make a thick batter. Beat hard, and let set over night to rise. In the morning add one half level teaspoonful of sal soda dissolved in a little warm water. If too thick, add sweet milk or water. Bake on a hot griddle. These taste like buckwheat cakes.



Double Shelf to Hang Over Kitchen Cabinet, Pictured Below

## Furniture Made From Packing Boxes

**T**his shelf is designed especially to go with the kitchen cabinet. It is made from part of a packing box. The shelves consist of two boards thirty-six by eight inches, while the ends are eighteen by ten, and are shaped exactly as shown in the illustration. It may be used in connection with the cabinet, and hung directly over it. It would be a convenient place to keep your various cook books, also flavorings, in fact any articles necessary for cooking.

Aside from being useful in the kitchen, this shelf could be placed on the desk top here pictured, and used to hold books.

A comfortable chair in which to sew, a place to keep the stockings that need darning, a sunny corner in the room—and then the work is a pleasure. Now, this chair is just as easy and simple to make as it looks. Of course, it is very plain looking, but then who cares for plainness if the chair is comfortable?

It is made from a large packing box. Each arm is hinged on, forming a lid for a deep box on either side. One box may be used for your sewing materials, and the other may be given up to the man of the house for his tobacco, cigars and pipes, all dear to the heart of the smoker. The seat is also hinged fast, so that the lid may be lifted and the box used to stack back numbers of magazines, papers, and so forth. The chair should be painted to match the woodwork of the room. An iron rod holds up the back of the chair, which is covered with a soft denim cushion. These cushions are very inexpensive, and may be bought in the upholstery department in any of the big city shops, or they can be made at home. The seat of the chair is covered with a soft cushion made of the same material as that used for the back.

The majority of writing desks are so very expensive that the woman of average means feels that she cannot afford to buy one. So especially for her benefit we are showing this attractive desk top, which was made from one large packing box.

## Good to Remember

When churning, if the cream is too cold, put it in a pan and let it sit on the stove until it warms. You will find that you can churn much quicker.

When making biscuits, corn bread, cake, etc., with buttermilk, add as much cream of tartar as you do soda. You will be delighted with the result.

Always keep pulverized sugar for icing. If it is lumpy, mix with a little hot water or milk.

Add a small pinch of soda to sour fruit of any kind when cooking, and not nearly so much sugar will be required. The soda modifies the acid, so that it will not be injurious to a delicate stomach.

When making meal mush, stir in from one half to one cupful of sweet milk, and when you come to fry the mush, it will brown much nicer.

To poach an egg without making the white spread, put about one half teaspoonful of vinegar in the water.

When tucking sheer goods on the machine, try putting a single strip of newspaper under it while stitching. The goods will not pucker if you do this.

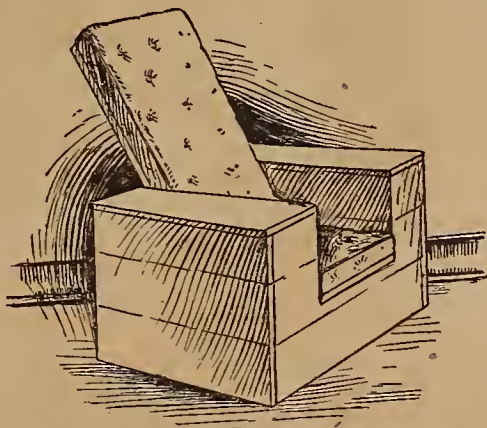
## English Roll Pudding

**T**ake one quart of sifted flour, a piece of shortening the size of an egg, and mix together as for pie crust. Moisten with water to the consistency of biscuit dough, and roll out into a sheet one fourth of an inch thick. Cover this with finely chopped suet, brown sugar and English currants, or any kind of preserved fruit. Fold over the right and left sides, then roll from one end to the other.

Have your pudding cloth wet, and sprinkle it with flour. Place your roll on the flour, fold the ends over securely, and roll tightly, so that no water will get in. Tie firmly. Place in a kettle of boiling water, and boil one hour and thirty minutes. This pudding may be served with or without sauce.

## Cream Pie

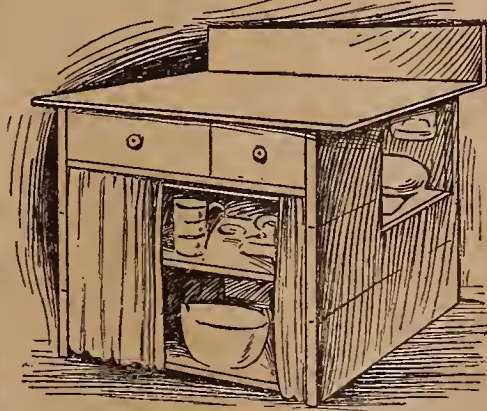
**O**ne cupful of sugar, one cupful of cream, one tablespoonful of flour, the whites of two eggs beaten to a stiff froth. Add the eggs last. Flavor to taste. Bake in a quick oven. This will make one pie.



Easy Chair, Just the Kind of Chair to Have for Sewing or Reading, and Yet It is Made From a Packing Box. It is Easy to Make and Very Inexpensive. The Cushions to Cover the Back and Seat Can Be Bought at a Small Sum or Made at Home

It was made to fit on an old wash stand, but a box would serve the purpose just as well. And if desired, a shallow drawer could be made in the top of the box.

The compartments in the desk are not at all hard to make or fit in. A man with but little knowledge of carpentry



Here is a Novel Idea for a Kitchen Cabinet. It is Quite Simple Enough for Any Man to Construct. All That is Required Are Patience and a Few Good Tools

## The Cup of Tea

**W**HY are so many really good housekeepers careless about making tea? It is such a simple thing to do, and yet how often the tea is spoiled in the making.

Remember the old saying, "Unless the kettle boiling be, filling the teapot spoils the tea."

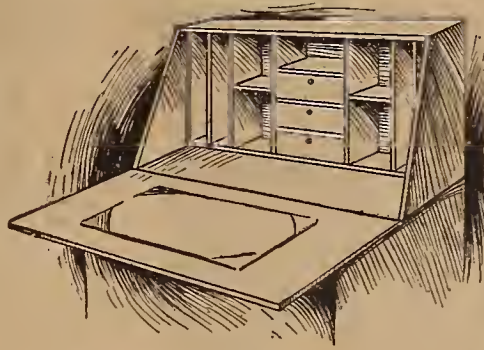
To make a cup of tea correctly, use one half teaspoonful of tea to each cupful of water, which should be freshly boiled and bubbling. Don't use water that has been boiling for a long time, because it has lost all its life with continued boiling.

Be sure to scald the teapot before putting in the tea. Pour a little water over the tea, and allow it to draw for three minutes, then pour in the entire quantity of water required, measuring it carefully.

Don't permit the tea to boil, and above all, don't allow the water to stand on the tea leaves longer than ten minutes. If it must be kept hot, strain the tea and pour it into another teapot.

## Orange Pudding

**T**ake four oranges, and peel and slice them very thin, lay in a deep dish, and sprinkle with one teaspoonful of white sugar. Beat together one cupful of sugar, one egg, two yolks and three tablespoonfuls of corn starch. Heat one quart of milk until it comes to about the boiling point, then stir the eggs, sugar and corn starch in it, being very careful to see that it does not burn. When it cools, pour it over the oranges. Serve at once.



Attractive Desk Top Made to Fit on an Old Wash Stand, But a Box Will Serve the Purpose Just as Well

could easily do the work. The front of the desk is of course on hinges, to allow it to open and close. Paint the desk top the color of the woodwork in the room in which it is to be used.

Of course the general appearance of furniture made of packing boxes depends largely upon the neatness of the builder, for the boxes often need considerable planing, sandpapering and puttying.

The convenient kitchen cabinet was constructed from a large packing box with the aid of a jack knife, a hammer, a plane and a saw.

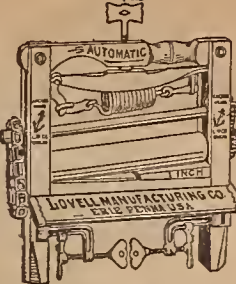
The opening on the left side contains a soap dish screwed to one side, and a wire rack, to hold a nail brush, screwed to the other side. There is also room for a wash basin. The small drawer is used for case knives and forks, measuring spoons and other small cooking utensils. The large drawer may be used as a receptacle for salt, pepper, grater, rolling pin, mixing spoons, meat knife and fork, turner and other articles which are too long to fit in the small drawer. The knobs of the drawers are made from an empty spool saved in two and screwed to the front of the drawers.

The shelves underneath the cabinet afford ample space for pots and pans. A brown denim curtain hung on a brass rod entirely conceals the shelves and gives the cabinet a very neat appearance.

The top of the cabinet may be covered with zinc and used as a molding board.



## 2 Cents a Week



That's all it costs you to own a clothes wringer that wrings four times the thickness, automatically equalizes the pressure for the full length of the rolls, spreads out the clothes, cannot run out of gear, will not break buttons, and is absolutely guaranteed for five years.

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are more economical, more satisfactory, more durable, and turn easier than any other wringer.

Fill out and mail the coupon below, giving us the name of your local merchant and we will prove to you that the "Anchor Brand" Automatic will save one-half your wash time, and cost you only 2 Cents a Week.

Lovell Manufacturing Co., Erie, Pa.

Mail This Coupon Today

LOVELL MANUFACTURING CO., Erie, Pa.  
Tell me how I can get an "Anchor Brand" Automatic Wringer for 2 cents a week on a 5 year guarantee.

My name is.....  
Town..... State.....

Dealer's name.....  
(Be sure and give this)

## BECOME A NURSE

Our entire method, including study and practice, taught by correspondence.

This is Mrs. Martha L. Stuppelbein of Palmyra, N.Y., one of several thousand efficient graduates of this school.

We have trained thousands of women, beginners and practical nurses, in their own homes, to earn \$10 to \$25 a week. If you desire a larger sphere of influence, greater independence, and worthier remuneration,

Mail this Coupon

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534 Main St., Jamestown, N. Y.

Please send your 56 pp. Blue Book for 1909 explaining method, with stories of successful nurses.

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25 10c

Fine art cards beautifully colored. Flowers, Landscapes, Pretty Girls, Love Sets, Birthday and other choice cards. All different. No comics. The kind that sell for 3c to 5c each. Large illustrated catalog showing 2500 latest cards at lowest prices—FREE. HOMER GEORGE CO., Dept. 3, CHICAGO.



Trade Mark  
Free Sample. Write Dept. A17  
Lamont, Corliss & Co. Agts. 78 Hudson St. N.Y.  
**LASTS LONGEST**

**This AWL** Sews a lock stitch like a machine. Just the thing for repairing Shoes, Harness, etc. You can make a neat and durable repair and quickly too. Can be carried in any tool box or pocket.  
GET ONE IT will save you time and trouble. One repair may save you many times the price. Complete sample with two kinds of needles, thread, &c. for 75 cts. A great money maker for agents. Send quick for a complete sample, to ANCHOR MFG. CO., Box 484, Dayton, Ohio.

## AGENTS ARE COINING MONEY

Selling this Combination Tool  
**WASHINGTON HATCHET**  
Sells at sight to farmers, housekeepers, storekeepers, etc. We can show you how to make from \$5 to \$10 a day. Experience unnecessary. Write today for our agents' offer. H. THOMAS MFG. CO. 104 Barney Block, Dayton, O.

**Can Your Own Fruit and Vegetables.** Keep profits at home. We'll show you how. **CANNERS' SUPPLY CO., DETROIT, MICH.**

## "A Kalamazoo Direct to You"

TRADE MARK REGISTERED  
We have more than 100,000 satisfied customers in more than 17,000 cities, villages and towns in the United States who have each saved from \$5 to \$40 by buying a Kalamazoo stove or range on

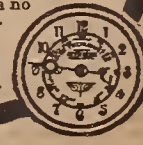
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direct from our factory at actual factory prices. No stove or range has a higher reputation or gives better satisfaction. You run no risk. You save all dealers' profits. We pay the freight.

Send Postal For Catalog No. 183

and see list of towns where we have satisfied customers.

Kalamazoo Stove Company, Mfrs., Kalamazoo, Mich.  
Our patent oven thermometer makes baking and roasting easy.







"Cupid," Fourth Prize Pony. The Other Three Ponies Are Even Prettier Than "Cupid"

## Take Your Choice

Every pony winner in this contest will have his or her choice of one of the four prettiest ponies in America, or of a beautiful Harrington piano, exactly like the one pictured below. Two of the ponies will be given, each with a handsome new cart and harness, and the other two with saddle and bridle complete. Each pony is guaranteed to be young and sound as a dollar. Think what fun you can have with one of these splendid pony outfits this spring and summer! Think how rich you will be, too! Any boy or girl who is willing to hustle a little after school or evenings can win one of these ponies or pianos. They will all be given to the boys or girls who send the most subscriptions to FARM AND FIRESIDE during the next few weeks. Do you want one?



\$600 Harrington Piano. Four of These Superb Pianos Are Offered in This Contest

## A Special Prize for You

I am going to give every boy or girl who sends me ten subscriptions to FARM AND FIRESIDE before April 20th, a special prize. This of course is entirely in addition to the ponies, pianos, the hundred Grand Prizes, and the prize that every contestant will receive. It is a special extra prize for you if you hustle, so start right in to-day to get the subscriptions.

## How to Get a Pony

First, cut off the coupon below and send it to me. I'll write you immediately and send you many pictures of the ponies, and lots of other things. But if you want to make sure of a prize the very first thing, don't wait to hear from me, but hustle and get ten of your neighbors or friends to each give you 25 cents for a subscription to FARM AND FIRESIDE to run the entire balance of the year 1909. Then you will be a prize winner sure, and you may keep five cents from each subscription for yourself. Hurry and get the ten subscriptions. You can do it in a day or two if you hustle. Yours for a pony,

The Pony Man  
FARM AND FIRESIDE  
Springfield, Ohio

March 25

Dear Pony Man:—

I want to get a pony. Please write me by return mail, telling me how I can get one, and send me all the pony pictures, the other pictures, and full information, without cost to me.

Name.....

St. or R. R.....

Town.....

Date..... State.....

CUT THIS COUPON OUT—FILL OUT AND MAIL TODAY



This is "Dandy," the First Prize Pony, Looking at You

## The Soul of Honour

[CONTINUED FROM PAGE 23]

full-fledged, deliberate plan, but the merest suggestion as faint as a whisper in the ear.

"I will come," he said, and as he spoke that hidden whisper became more intelligible.

"Good; then remember the 19th of September."

"Yes, the 19th," echoed Marcus, mechanically. In spite of his doubts the reconciliation with Vannister excited him, for he knew all that it might mean, all at least that it might have meant but for that woman in the way.

"I shall write to Windermere, I think," said Vannister. "He was an old friend of mine when—I cared about having friends, and he will take the proposal more seriously if it comes from me. I shall tell him, too, of the delay I recommend, but I think we will make it six months instead of a year."

Marcus replied in the same conciliatory spirit.

"If you will write the letter, sir," he said, "I will take it myself to Lord Windermere. I leave for town to-night."

Vannister nodded, and with a deep bow to Honour the young man left the room.

### CHAPTER XVI.

AS SOON as he was gone she crossed the room with quick, impulsive steps, carried on by an intolerable sense of fear and loneliness.

"Guy, what have I done?" she said eagerly. "I have taken too much upon myself. I have vexed you and upset you in some way; tell me. I cannot bear that strange look in your eyes." His manner repulsed her before he spoke.

"You grow fanciful, my dear." She fell back.

"Then it is true. I have annoyed you, but how, dear Guy; I told you I had many faults. I shall often act stupidly and crudely; but if you will tell me it will be all right, only don't shut me out. I can't bear it."

"There is nothing to bear."

"Yes, there is; I can hear the irritation in your voice. You are resisting me in some way, scorning me, too; but if you will not tell me, why, then, I must endure your silence, that is all. I can bear most things," she added under her breath, "unless these wonderful weeks have made me forget the way."

Vannister crossed the room quickly. She did not turn her head, but heard his quick breathing close at her side. He put two strong hands on her slight shoulders, hands that gripped her like iron.

"Look at me," he commanded.

She flung back her head and remained so, hardly breathing under his burning look. From her white rounded neck the lace collar fell away; only his pearls clasped the gleaming whiteness. Her eyes melted into his.

"Honour," he said between his teeth, "had you ever seen Marcus Quinten before?"

The white face crimsoned; the throat quivered; the eyelids fell.

He was answered, and her audible reply he hardly listened to at all.

"What makes you think that, I wonder," she faltered.

"Never mind why I think it. I ask you, have you ever seen him before?"

Something in his tone told her that if she now owned even to a previous acquaintance with Quinten after having greeted him as a stranger it would mean the loss of all that reverence of his for her which made life dear. Besides, explanations would follow, and how could she explain.

She was too flurried and bewildered to understand that all this was nothing to the definite, terrible step away from him she would take if she lied to him. In truth, the position was appalling, for her husband's power of discernment brought an unknown factor into the case. If he had not been so quick to notice her embarrassment she would have had time to plan, but as it was she had just promised Marcus, solemnly promised him to keep his secret, and it seemed impossible to break her word. Her mind, usually clear and straightforward, was confused, puzzled and shaken; she knew not how to decide, and did not realize that the simple solution of the whole matter would have been to have turned to her husband and said, "I told you once that sad story of mine, which you yourself said reflected no discredit upon me. He is the man who brought this suffering upon me."

It seemed to her that her resolve to protect him forbade her to be so frank, and besides, although Vannister was too noble to blame her for having been duped by a blackguard, she knew that the late-

ful story irritated his proud, sensitive mind all the more because he never spoke of it, but shut it away with something like horror. And she loved him so that she could not bear his thoughts of her to change. Ah! how she loved him, with the simple, fond, clinging love of a child mingled with the deep, self-realizing passion of a woman. It was a crystal river of devotion that she poured at his feet, and now she must choke that clear stream with a lie.

These thoughts ran with lightning quickness through her mind, a swift, maddening current of thought which left her stupid and blind, and so she fell from that high level of truth and purity which had sustained her hitherto. A moment later she had stooped to a lie. The words sprang out hurriedly, chokingly, frightening her as she said them.

"No, no! I never knew him. How could I? Why should I?"

His grip relaxed, he put her from him. "You believe me?" she gasped.

[TO BE CONTINUED]

## Fish That Telephone

FISHING from a bank or boat in summer or through the ice in winter with the line fastened to a bob to go under, a flag to wave or a bell to ring when the fish bite is an old story to country-bred boys; but now comes a Norwegian with a device whereby fish in the ocean are compelled to telephone to the fishing smacks that they are on the way to the nets.

It consists, first, of a microphone, a simple device for intensifying sounds, one form of which is used in the receiver of an ordinary telephone; this is encased in a thin, water-tight box of steel which is lowered into the water and kept connected with a telephone receiver on the fishing boat. By this apparatus, it is said, the fisherman is informed not only that fish are coming, but also what variety of fish is on the way. Thus, the approach of a school of herring is indicated by a kind of whistling sound, and the watery march of the cod by a sort of grunting. So does the old saying, "As dumb as a fish," lose its meaning.

## An April Fool Party

THE invitations should be written on plain white paper, neatly folded, and instead of envelopes, placed in tiny fool's caps made of paper to match.

As soon as all arrive, hand each a program for the evening, written on paper cut in the form of a triangle. Do not play too many games, but have a little music and allow some time for the supper.

The following always causes a great laugh. Take a blank book, paste small numbered slips upon the pages, so that each one may find his or her number without opening the book elsewhere. Have the pages run between 21 and 70, leaving out the zero numbers. On each page write "APRIL FOOL" in large, clear letters. Do not leave a chance for the words to be misunderstood. Then on slips of paper write the following limcrick, having the slips numbered in the same order that the pages are:

Peep into the future while you may;  
The knowledge is free—there's nothing to pay.

Turn the leaves of this book,  
On page twenty-one look—  
See what you'll be called ten years from to-day.

Of course the page number on each slip is different, otherwise they are alike. Give each guest a slip, and have them find their page in turn. Each one must keep the answer a secret until all have tried the "book of fate," then let one count "three," when each must shout it aloud. The result is a deafening "April Fool," as you will readily see.

The lunch is only a farce, as each article of food must be merely an imitation. The little individual butter dishes should be served with triangular bits of wood coated with melted butter; the coffee should be made of sawdust colored with molasses (birch is best, as it is bitter), with just enough coffee in it to give it the smell without the taste. Buns may be made of sawdust; milk made of chalk and water; salt used as sugar, etc. Your own ingenuity will suggest dishes enough to make the menu.

Of course there must be some really good things to eat in reserve, to soothe the hungry guests after they have been well fooled. The party will be voted a better success if this is done.

WINNIFRED HALL.



**IF YOU'VE NEVER WORN**

**TOWERS' FISH BRAND SLICKER**

you've yet to learn the bodily comfort it gives in the wettest weather

MADE FOR—  
HARD SERVICE—  
AND  
GUARANTEED  
WATERPROOF

**\$3.00**

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for your home? Every home needs new furnishings now and then. Let me tell you how you can get whatever you want, without cost. From a sewing machine, to silverware, FARM AND FIRESIDE will furnish everything. All you have to do is to acquaint your neighbors and friends with FARM AND FIRESIDE. Send a postal to-day for full particulars and our big Reward List containing 300 illustrations, to

**JOHN L. THOMPSON, Secretary**

The Million Club, FARM AND FIRESIDE, Springfield, Ohio

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**Goes the Route**

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**RANGER BARB WIRE**

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**STRONG DURABLE**

The only absolutely successful single strand barb wire ever made.

**M. M. S. Poultry Fence Saves 50%**

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**5c Per Square.**—We will guarantee to put any old leaky, worn-out, rusty, tin, iron, steel, paper, felt, gravel or shingle roof in perfect condition, and keep it in perfect condition for 5c per square per year.

**Roof-Fix** The Perfect Roof Preserver, makes old, worn-out roofs new. Satisfaction guaranteed or money refunded. Our free roofing book tells all about it. Write for it today.

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**SCHAFER SADDLERY CO., Box 123, DECATUR, IND.**

Send for Catalogue **FREE**

## A WAY OUT OF YOUR ROOF TROUBLES

**American Ingot Iron Roofing**

**Guaranteed For 30 Years**

Without Painting

The Only Guaranteed Metal Roofing ever put on the market. Samples free. Write for a free book showing remarkable tests.

**THE AMERICAN IRON ROOFING CO., Dept. K, ELYRIA, OHIO**

**BIG CROPS** can be had by use of **Pounder Flexible Harrows** 100,000 in use. Write now for catalog and delivered prices. Satisfaction guaranteed.

**G. H. POUNDER No. 75 Ft. Atkinson, Wis.**

## The Louden Way

of saving labor—absolutely indispensable on your country place. Write for catalog of Louden Litter Carriers, Hay Carriers, Sanitary Steel Stalls and Stanchions, Flexible Barn Door Hangers and other labor-saving devices. **LOUDEN MACHINERY COMPANY, 658 Broadway, Fairfield, Iowa.**

**THE CROWN Bone Cutter** for cutting green bones. For the poultryman. Best in the world. Lowest in price. Send for circular and testimonials. **Wilson Bros., Box 200, Easton, Pa.**

## From a Farmer's Window

"A body can't carry everybody's troubles on his shoulders. It would make him crazy to try it. Think of all the fires and the accidents and the earthquakes and everything like that. If you get to worrying over them all, it would just break you down."

So a good friend of ours says, and there is a lot of truth in it. It seems sometimes as if there never were so many hard things to vex and worry us as at the present time. One might be all the time in the worrying business and then not supply the demand for sympathy. The fact is, there is not more of trouble and disaster now in proportion to the population than there has always been. Don't you know that the evils of our own times always seem most difficult to bear? There are no good times except the years which have long since passed away.

And yet there is another side to this, and a side of which we do not always think. Here comes Mrs. Brown. She always has some trouble, real or imaginary, to tell about. We know what is coming and we dread to open the door to her. How can we spend the time to stop and listen to the tale of misery which we are sure is coming? It is a busy day, with lots to do, and maybe the heart has its own burdens to bear. What can we do? It is a hard question.

Can we for a moment turn the matter around? What if it were I who needed a bit of cheer and sympathy? I have had such days. They will surely come to me again. Just now it may be there is a calm in my life. Thank God if this be true, but remember that the shadows will surely come again all too soon. So let us sit down and open the heart's door to this friend. What is a moment of time compared with the comfort which may thus be given? An old doctor friend of ours says he has learned that, more often than we know, what is needed in many cases of sickness is not so much medicine as moral support. Just a kind and helpful word with some simple remedy will tide over the hard place and make the sun shine again.

Men have their troubles, too, as well as women. Here is one who is not very well. He finds it hard to make the world go. He is in debt. Things look blue to him. He wants to sit down and tell somebody about it. It will make him happier and he will go back to his work with a new will. Shall we give the lift? It will take time and the wear on the soul is by no means to be thought of slightly. It means something of vitality expended, but shall we not freely give what we can?

Do you know who is the man the world loves best and the one to whom it flees when trouble comes? Surely it is the man or woman who never is too busy to sit down and talk with the poor, lonely and burdened people who knock at the door. If you find a man whose heart is cold and unsympathetic you will see that there never is any beaten path to his house. No one goes there, because he has nothing to give.

Is giving, then, all there is of life? Who of us has not lived long enough to know that giving is getting? How can that be so when all we have to give is the red blood of the heart? What kind of a harvest will such sowing bring? The very best of all, I believe. Is it not a fact that after you have been heart to heart with one of earth's sad ones, and done the very best you could to be kind and helpful and sympathetic, you go about your work with a joy that you did not know before? Can you not get through your work in less time than you would have done had not this wayfarer come to your gates? Your heart sings a sweeter song than it would then. You know the real joy of giving a cup of cold water to the thirsty one.

The farmer and his wife have their full share of calls for sympathy. What shall we do with them? Well, in the first place, don't "make fun" of those who come seeking a bit of cheer. That takes every bit of the joy out of it. Take the time to listen. Listen with your eyes, your whole body and your heart, as well as with your ears. Put something into your listening. It is an art well worth cultivating. And then be careful what you say. Don't make it any worse than it was by blaming somebody who is not present and may not, if you knew it all, be at all to blame for the situation with which you have been called to deal. Criticism given in a harsh, inconsiderate way is simply pouring oil on the fire. Don't do it.

And if you possibly can do so, change the subject. Get the mind to thinking about more cheerful subjects. Make the tired heart think of all the bright, beautiful things you can. There are many splendid things in every life. Bring some of these out and set them in order where your visitor may see them and get the good of them. So he will go away a better man, and surely you will be the better and stronger, also.

EDGAR L. VINCENT.

**Amatite ROOFING**

**A Cure for Leaky Roofs**

**DON'T** waste time trying to patch a leaky roof! A roof which leaks in one place is generally on the verge of leaking in many other places.

The cheapest method of repair is to cover the whole roof with *Amatite*. *Amatite* costs so little that the entire job can frequently be done for the expense of caring for a leaky roof. After the old roof is covered with *Amatite* you will have no further worry or expense.

Most ready roofings require a coat of paint every two years to keep them in order. But *Amatite* is not the ordinary kind of Ready Roofing. *Amatite* has a real mineral surface, firmly imbedded in the Coal Tar Pitch waterproofing. This surface resists the attacks of the elements like a stone wall. It demands no ad-

ditional protection or covering, such as a coat of paint.

Buying *Amatite* is the same as buying an ordinary ready roofing with an agreement from the dealer to keep it painted free of charge. Such an agreement on the ordinary roofing would double its value. You practically get such an agreement with every roll of *Amatite*; yet the price is no greater than that of the ordinary kind.

Send us your name and address, and we will forward you by return mail a free sample of *Amatite*, and you can see how tough, durable and substantial it is. Write to-day to nearest office.

**BARRETT MANUFACTURING CO.**  
New York, Chicago, Philadelphia, Boston, Cincinnati, Minneapolis, Cleveland, St. Louis, Pittsburgh, New Orleans, Kansas City.

## Here's Your Chance! Save Big Money on Buggy

If you are in the market for a buggy, write us a line on a postal, and we'll quote our prices for 1909. We'll make to your order a genuine Split Hickory Buggy—save you from \$26.50 up—and ship at factory prices. Find out how much buggy value your cash money will buy direct from the manufacturer.

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"Makers of Split Hickory Vehicles"  
Station 23, Columbus, Ohio

Notes:—Celebrated Sheldon French Point Automobile Springs used on all Split Hickory Vehicles making them positively the easiest riding buggies on the market.

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In any community is the last resting place of loved ones, and if only as a mark of respect it should be fittingly kept and made proof against desecration.

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are designed to harmonize with and beautify the old burying grounds. They last for years, are stock proof and much cheaper than wooden fences in the long run. Write for our fine, free illustrated catalogue.

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**THE MILLION CLUB, FARM AND FIRESIDE, Springfield, Ohio**



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Why shouldn't you know what is in your roofing so that you may be sure of your buildings' protection?

## Genasco Ready Roofing

is made of Trinidad Lake Asphalt—Nature's absolute waterproofer that doesn't crack, rot, break, or leak.

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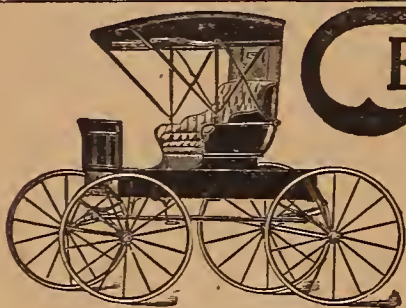
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The Southwestern farmer enjoys his winter. He does not know what it is to be shut in by snowstorms. A hard freeze is unknown to him. Besides avoiding the discomforts and hardships of a long, cold winter he also avoids the expense of one, for he does not have to build warm shelter for his stock. Neither does he have long, costly feeding periods, for cattle in the Southwest have good range all the year. He does not have big fuel bills, either. Most days of a Southwestern winter the windows are open and the farmer's wife goes about her housework in comfort. The Southwestern farmer can make money all year, while you are compelled to be idle months at a time. All this tells in the bank account at the end of the year. Why don't you buy a farm in the Southwest and enjoy life? Good land can be bought now for \$5 to \$25 an acre. Next year it will cost more. It will be dollars in your pocket if you investigate this Southwest question now. Go down there and look around. It will do you good to get away from the cold for a short while. Let me send you some interesting books about the Southwest. They will inform you of opportunities waiting for you there, and will open your eyes to new possibilities. Write for free copies today.

JOHN SEBASTIAN, Pass. Traffic Mgr.  
1853 LaSalle Station, Chicago  
1853 Frisco Building, St. Louis



## Report of the Country Life Commission

SOME interesting things are to be found in the report of the Country Life Commission and the President's recommendations which accompany it.

Until very recently the greater part of our agricultural teaching and practically all our agricultural investigation have had to do only with problems of production. These are important, for without good production there cannot be good profit, and without reasonable profit there cannot be prosperity.

Better crops and better milk yields are not the only essentials to a successful agriculture. Underlying these are business principles and methods which are just as important as the size of the crop. I am glad to see that the President recommends that investigations be made along these lines. This has a special personal interest to me, from the fact that several years ago I asked to be allowed to take up investigations of just this kind for the experiment station with which I was connected. The idea seemed to meet with favor at first, but it was thought best to submit the matter to the authorities in the Department of Agriculture at Washington, since it was an unusual line of inquiry. In due time I was told that these Washington authorities would probably rule, which was explained as their way of making a ruling without making one—that expenses for such an investigation would not be a proper use of experiment station funds. And so ended the investigation before it was allowed to begin.

It is to be hoped that this report and these recommendations will be the means of making funds available from some source for carrying on investigations of this sort. There are numerous business problems connected with the adjustment of the farm capital, the type of farming, the size of the business, the marketing of the product, etc., upon which the farmer needs light far more than he does upon many of the remote scientific questions in which the experiment station investigator often becomes interested, but about which other people care very little. It is perfectly natural for the investigator to be led away into these minute inquiries, and if asked about their practical value, his reply always is that we never can tell where a scientific inquiry may lead and what practical things may come out of it. This is perfectly true, but meantime hundreds of problems about the practical value of which there is no question whatever are lying entirely untouched.

Cornell University has seen the value of these business questions and has had available state funds with which to carry on a few investigations. Representatives from the university have visited every farm in Tompkins County, the county in which the institution is located. They have learned the size of the farm, the type of the farming, the size and proportionate division of the investment, the running expenses and the returns.

From this information they are able to learn many things. They can determine what returns the farmer gets from his services after allowing for interest and depreciation on the investment. They can learn how the profitable farms differ from the unprofitable ones, whether large farms or small ones pay best, what size of investment pays best, and many other questions of practical interest. Their results are not yet ready for publication, but will be awaited with much interest.

The business and sociological questions emphasized in the report of this commission are bound to receive more attention in the future than they have in the past.

FRED W. CARD.

## Disking Before Breaking

HERE'S something new for the man who has meadow land to break up this spring. It is not an untried theory, but an experimental success.

Instead of using the disk harrow after breaking up the meadow, cut the sod before breaking. This may appear impractical at first, but the method possesses several advantages over the old way of breaking up and preparing meadow land for a crop. The sod will be much easier to turn over, and will also be as well pulverized, as if plowed before disking; the cutting will be more evenly distributed, while the wear and tear on man, beast and machinery will be greatly diminished, as there will be very little of the jolting, jerking and twisting occasioned by riding over newly broken, uneven ground. The most admirable feature of this method is the ease with which the horses pull the disk. The ground being smoother and more compact, a firm foothold is easily obtained, and a saving of both time and labor is a natural consequence.

If by this method you can do more work, do it better, and accomplish it easier, isn't it well worth trying?

M. A. COVERDELL.



## Do you want a fine farm for little money

—a farm that is bigger than you can afford to own where you live now?

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## Parcels Post

I HAVE quite a number of letters from FARM AND FIRESIDE readers asking me if I am going to quit fighting for a parcels post. Well, after looking the situation over carefully, I have decided that fighting is useless at present. The champion of these progressive measures, Meyers, is out and a pure politician is in his place. I said "pure;" I should say "practical." His object will be to build up his party, not to introduce reforms or progressive measures. I do not look for a single change of any sort that will benefit the farming population one atom, so long as he holds the office. I may be happily disappointed, but do not expect to be. The department will be administered for the benefit of the party first, last and all the time. Postal reform needs a few men in the House who will not be bluffed by the representatives of the Express Interests nor downed by pettifoggers and a few more of the same sort in the Senate. The farmers could put them there, but they won't. They will keep on voting as their local bosses dictate—that is, the greater portion of them will—and postal reform may go to grass. It will be cheaper to send your packages to England, and have them remailed to your friend in an adjoining county, than to mail them direct to him. We have a parcels-post treaty with England that enables us to do this. The principal objection to this method of getting your package to your relative or friend is that some time will be required for the package to make the double journey. I rather guess we will have to give up the idea of postal reform for a few decades, and take what pleasure we can in noting that we have the most miserably managed postal department in the world, years and years behind that of any other civilized nation, a postal department managed by, of and for politicians. The Grange has repeatedly asked for a parcels post. The "Farmers Congress" has asked for it. The "Country Life Commission" recommends it, then all these fellows go home and vote for the barnacles, pettifoggers and politicians the bosses nominate, and by so doing declare they do not mean what they say, simply eat their own "resolutions." Last winter I wrote one of the leaders in Congress, asking if it were possible to do anything toward effectively advancing this matter. He replied: "Not with a postal deficit of sixteen million dollars staring us in the face." I asked him if he knew that it cost the postal department over forty million dollars to carry the congressional and other free mail, and he made no reply. This matter of a parcels post rests with the farmers. When they demand it with voice and vote they will get it, but never with resolutions. FRED GRUNDY.

## Agricultural News-Notes

In the products of the soil the financial strength of the nation is entrenched.

It has never been so fully recognized as it is now, that "books aid the plow."

Farmers' boys should be educated in the best methods of lessening the cost of production.

The average rent an acre of school lands in Oklahoma is reported to be thirty cents per year.

Kentucky is first in having the greatest number of acres in tobacco; North Carolina second, and Virginia third.

The correct solution of the good-roads problem is the immediate adoption of the principle of long-term payments for permanent improvements.

The "Big 5" live-stock markets are Chicago, Kansas City, St. Louis, Omaha and St. Joseph. Chicago, Omaha and Kansas City lead in sheep.

Farmers needs briefly stated are better schools, better roads, fewer work hours and more hours for reading, thinking, and enjoying life in and about the farm home.

A national wool-storage warehouse is to be built in Chicago. Of the fifteen directors, nine will come from the north-western wool-growing states, including Montana and Wyoming.

In California the distinctive names of farms are to be copyrighted by the leading fruit growers. It involves the reputation of all who brand their packages. A good idea for adoption elsewhere.

The value of scientific research in promoting profitable agriculture is shown by the fact that the sugar content of the beet has within a remarkably brief period been increased from 13.5 per cent to 15.35 per cent.

In Europe a first-class peanut oil is the most highly esteemed of vegetable oils after olive oil. It is much used in the manufacture of butter substitutes. The West African nuts contain the highest percentage of oil.

# WILL YOUR HARVEST BRING FULL VALUE?



IT all depends on you—on whether you make full value a possibility.

To prepare your soil—to plant good seed and plant it at the right time—to care for your fields while the grain is growing, all this is vital to farming success. You know it is vital and you use all your intelligence, all your ingenuity, all your energy to do things as they should be done.

How about the harvest?

That's when the reward comes. That's when you transform your season's thought and labor and watchfulness into gold.

Your harvest will bring you full value if you are prepared to harvest at the right time—just when the grain is ripe—and prepared with a machine that will get all the grain, whether standing, down or tangled, without delays, without breakdowns. A dependable machine in dependable condition is an absolute necessity.

In all walks of life we are guided best if guided by known truths.

It took years of expense, years of vexations and worries, for the farmers of the world to learn that of all the many harvesting machines, there were six on which they could depend:

**Champion McCormick Osborne  
Deering Milwaukee Plano**

## HARVESTING MACHINES

- depend on them for an easy harvest
- for a quick harvest
- for a harvest with least labor
- least expense
- a full value harvest.

Need we suggest that you let this known truth guide you? You don't want to experiment. You want a machine you know will give you a full-value harvest—this year and next year and through years to come.

These six dependable harvesting machines, established as supreme wherever grain is grown, are manufactured by the International Harvester Company under conditions guaranteeing highest quality in every machine that leaves the works—conditions which cannot exist in the business of any individual manufacturer.

This company, because of the tremendous demand which it supplies and because of its great working capital, is enabled to provide for you machines of most improved and practical design, choicest tested materials and finest workmanship. From its own mines, this company brings its own ore to its own foundries and steel mills—from its timber range it brings lumber to its own sawmills—from its coal mines, coal to its own furnaces.

Owning these great natural resources, this company never knows a shortage in materials of the very best quality. And what it does not own, it can buy—because of its tremendous consumption—the very best at lowest prices.

From all of which you benefit.

The individual manufacturer could not offer you such advantage.

Neither could the individual manufacturer maintain a staff of inventors and designers. By working together the manufacturers comprising the International company do maintain such a staff and experimental shops and laboratories—all for the further development and improvement of every principle and detail of harvesting machines.

From all of which you benefit.

The stability which co-operation and thorough organization has given this company appeals to the most skilled workmen. There is certainty and satisfaction in working for the International, with its annual pay roll of \$15,000,000. So this company employs and keeps the most capable workmen, the ambitious, earnest workmen who know how.

From all of which you benefit.

After working a whole year to grow a crop, you cannot afford to place your harvest in jeopardy—you cannot afford to put yourself in danger of unnecessary delays in the harvest field. In other words, you should have a machine that can be repaired quickly if anything should go wrong.

If you have an International binder, there will be no occasion for worry, because every dealer handling the International line carries a full stock of repair parts. Under ordinary conditions, the International machine will not break or get out of order—for each machine is tested and retested under far more trying conditions than will ever be encountered in the harvest field.

In the manufacture of International machines, the principle of construction is right—the materials are right—the workmanship is right—but, of course, all these things could not be done without an adequate organization—facilities to secure the proper raw materials and to employ skilled workmen and equip the manufacturing plants with the most modern facilities for turning out the machines. It is the thorough work in the selection of the raw materials and designing machines and the careful construction that lessens your responsibility when you go into the harvest field. Therefore, it behooves you not to make a mistake when you buy your binder.

Now, while you have the time, get ready for a full-value harvest. Call on the International dealer. Ask him for the catalogue of whatever of these six tested and proven dependable harvesting machines you want.

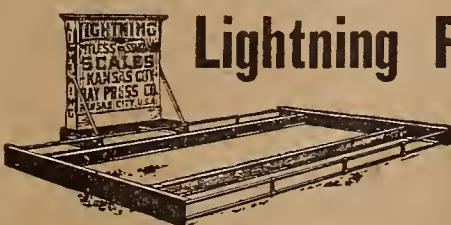
If you do not know an International dealer near you, write to our Chicago office, or any of our branch offices, and a dealer's name and address will be sent you promptly.

Second in importance only to a perfect machine is perfect binder twine. No better twine can be made than Champion, McCormick, Deering, Osborne, Milwaukee, Plano and International in sisal, standard, manila and pure manila brands. These twines—and repairs that fit for all machines of the International line—sold by International dealers everywhere.

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## Farm Notes

### An Eastern Farm Proposition

A READER in Waverly, New York, writes:

"I would like your opinion on the prospects of buying a farm of seventy-eight acres for four thousand dollars, going two thousand dollars in debt and not working it myself, but putting my father-in-law on it, who is a farmer, but somewhat along in years—say sixty years—and of my living on the farm with him assisting in my spare time and still working at my position, which pays me sixty-five dollars a month.

"This farm is near town; one part of it borders on the village line. The land is rolling, and lays toward the east. The house is in good condition, but the barns are in need of some repairs. There is plenty of water on the farm, no stock, just the bare farm. I would have to stock it when I go on it. The land is nearly all seeded down. It has not been worked for the past two years, with the exception of cutting the hay off. It is about fifteen minutes' walk to the town and three trunk lines of railroad. My business is a railroader and I could live there as conveniently as in my own home where I now am, and be as handy to my work. I was going to trade my town residence, on which I would be allowed two thousand dollars, and give two thousand dollars to boot for the farm, and go in debt for the two thousand dollars. Also what would it take to stock the farm on a small scale.

"I would like your opinion on this, and in case you think it favorable for me I would like to know what kind of crops would best pay off the mortgage on the farm, and not damage the land. The land is quite stony, but they say it will grow anything."

This man is typical of hundreds of others who are looking toward the farm. However, he does have a better proposition than many such men have. There are two reasons for this. In the first place, the farm is where he can make it his home and still continue his business. This is due to the fact that it lies close to the village, which adds to its value.

As a general proposition it is a very difficult matter for a man to carry on a farm profitably without being on it himself. If he can live on the farm, as in this case, the difficulty will be much less. For an additional investment of two thousand dollars this man can add to his home a farm of seventy-eight acres. This means an interest charge of about one hundred dollars. The problem, then, is to find out whether these seventy-eight acres can be made to more than meet this charge, for he is to transfer his home from one place to the other. Probably the cost of repairs and taxes would be little more in one place than in the other.

This extra two thousand dollars pays for the farm, but does not equip it. If he is to manage it himself, as he evidently intends to do, he must provide for this equipment. Census figures show that the average New York State farm has for every dollar invested in land and buildings about twenty cents in implements and live stock. This makes no provision for working capital with which to pay for feed, fertilizer, labor and other running expenses. It is also very certain that the average New York farm is undercapitalized along these lines of equipment and working capital. The proportionate amount needed for this part of the investment will vary with the type of farming to be followed, but our friend may feel safe in assuming that he will need at least another thousand dollars to put the farm into any reasonable shape for business. If anything new in the way of buildings is needed, it will take more than this.

Whether this arrangement with his father-in-law is likely to prove satisfactory is a problem upon which he has far more light than a stranger. I presume that as a railroad man he will have some time at home, which is a good thing.

What crops are best for him to grow is a question which no stranger can answer. He should first consider the things which he would like to produce and try to determine if they are suited to his farm and his market.

This is a problem which needs careful study. I know that in a general way Waverly and Sayre offer good markets for almost all kinds of farm products, but some may be more profitable or safer crops to handle than others. Then, again, some lines will demand more equipment, hence a heavier investment, than others. For this reason, if for no

other, he should avoid undertaking too many things. He can better afford to equip himself well for two or three main lines than to partially equip himself for a number.

The most important single thing to bear in mind in keeping up and improving the fertility of the soil is the need of humus. Plant food is essential, but that is secondary. This means that he should take every opportunity to turn something under and try to keep just as much vegetable matter as possible rotting in the soil. One of the most important things to do to accomplish this is to practise a short, systematic rotation of crops which will not keep any piece of land under the plow long at a time and which will provide for a good, stiff sod to be turned under at frequent intervals.

In buying a farm it is very important to get good land. Upon that point the advice of some good, intelligent farmer who knows this particular farm well would be far more valuable than that of any stranger. The price is reasonable for a farm lying as close to the village as this does, if the land is good and lies well and the buildings are fairly good.

FRED W. CARD.

### Setting Young Seedlings

THE writer has received several queries from readers in response to an article written last summer about growing posts, which shows people in general are interested along the line of growing timber. Why shouldn't they be, with our fast diminishing natural supply? What could be more desirable than for a young man now to set out a grove of maple, locust or catalpa, and when he is old enough to retire from active business life, have a grove that he can look to, both for profit and pleasure?

We see in some of the more level sections of this country many hard maple are being planted, both about the home grounds and in pasture lands. The ones we see set mostly are large trees with tops severely pruned. Were it not for stock, we believe the smaller sizes would be much better, for they could be trained to better-shaped tops.

We question the profitability of setting hard maple, better known as "sugar tree," for the sap alone, but we are quite sure in wood lots, where seedlings of all varieties spring up, that it will be profitable to thin out all except black walnut, mulberry and hard maple; in fact, we have been practising this for some three years, and find the "sugars" grow amazingly fast.

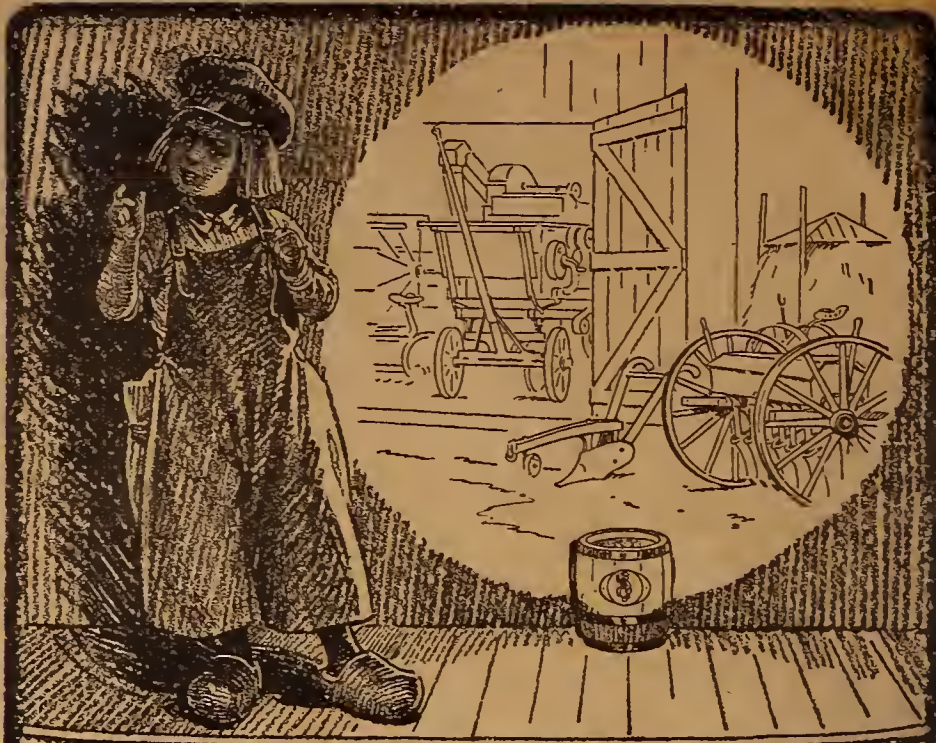
A great many farmers argue that the cement post has come to stay, and that may be so; we need such, for the wood post cannot be grown fast enough for the increasing demand for posts. But though cement posts come into general use, there will be a demand for a good wood post for such fences as are apt to be moved occasionally. Even though good wood posts drop in price thirty to fifty per cent, I cannot see why waste land cannot grow a profitable crop of locust posts.

With catalpa, which must be put on better land, it may be different, yet we have waste land which is good land for catalpa; for instance, a little patch across a ditch or creek which is unhandy to cultivate. I know of some farmers here and elsewhere who have put their little waste patches to catalpa. But locust will thrive on the poorest soil, and think of the acres of gullied land over our country lying perfectly idle, too thin for grass, growing weeds and briars in the most fertile, sheltered spots. Wouldn't it be grand if some energetic men would take up this land and reforest it with locust? Wouldn't it help the looks of the neighborhood, and ought not these men be paid well for their energy? They would be paid well, for who knows of a crop of locust posts which was not profitable when it was handled in a business-like manner.

Seedlings should be set as soon as the ground is thawed out. Even though the ground is soft and wet, the setting should be done; in fact, that is the best time, for the work is so much more easily done. A tiling spade thrust into the ground and withdrawn will make a hole large enough for the ordinary locust if pruned before setting.

OMER R. ABRAHAM.

Have you the proper tools and implements for your spring work of plowing and planting? If not, it will pay you to buy the kind advertised in FARM AND FIRESIDE, as we guarantee the reliability of every single one of them.



### Paint Talks, No. 4—Painting Farm Implements

Do not buy "dipped" implements. Know beforehand, if possible, that your implements are *painted* with Pure White Lead and linseed oil. But if you cannot be sure when you purchase your implements, at least in repainting them you can *make* sure that nothing but the purest White Lead and linseed oil are used.

The extent to which your implements are exposed to all kinds of weather makes necessary the same extreme care in painting as you would exercise in painting the exterior of your buildings. The cost of your implements runs into big figures, and the use of a cheap paint only increases that cost; whereas, the use of a *good* paint keeps your implements in the best repair and pays interest on the investment. To be sure you're getting only the purest White Lead and linseed oil, look for the Dutch Boy Painter trade-mark.

Meantime, send for our Painting Outfit, and if you need paint immediately ask your dealer for White Lead with the Dutch Boy Painter Trade-mark. It is the common-sense paint material for farmers who manage their farms on a business basis.



#### NATIONAL LEAD COMPANY

An office in each of the following cities: New York, Boston, Buffalo, Cincinnati, Chicago, Cleveland, St. Louis, John T. Lewis & Bros. Company, Philadelphia; (National Lead & Oil Company, Pittsburgh).

#### Painting Outfit Free

We have prepared a little package of things bearing on the subject of painting which we call House-owners' Painting Outfit No. 47. It includes:

- 1—Book of color schemes (state whether you wish interior or exterior schemes).
- 2—Specifications for all kinds of painting.
- 3—Instrument for detecting adulteration in paint material, with directions for using it.

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